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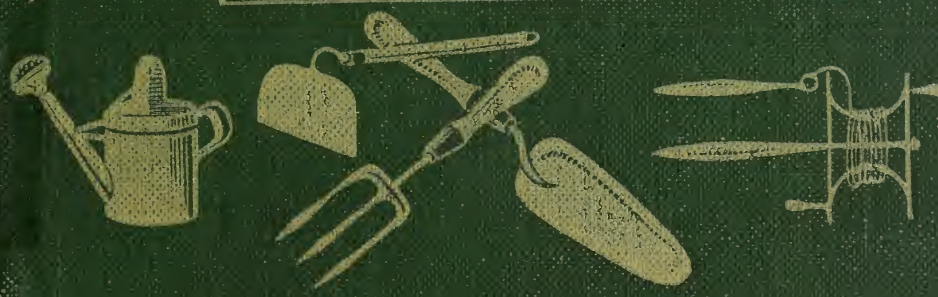
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GARDENING FOR LITTLE GIRLS



BY
OLIVE HYDE FOSTER



✓

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**GARDENING FOR
LITTLE GIRLS**

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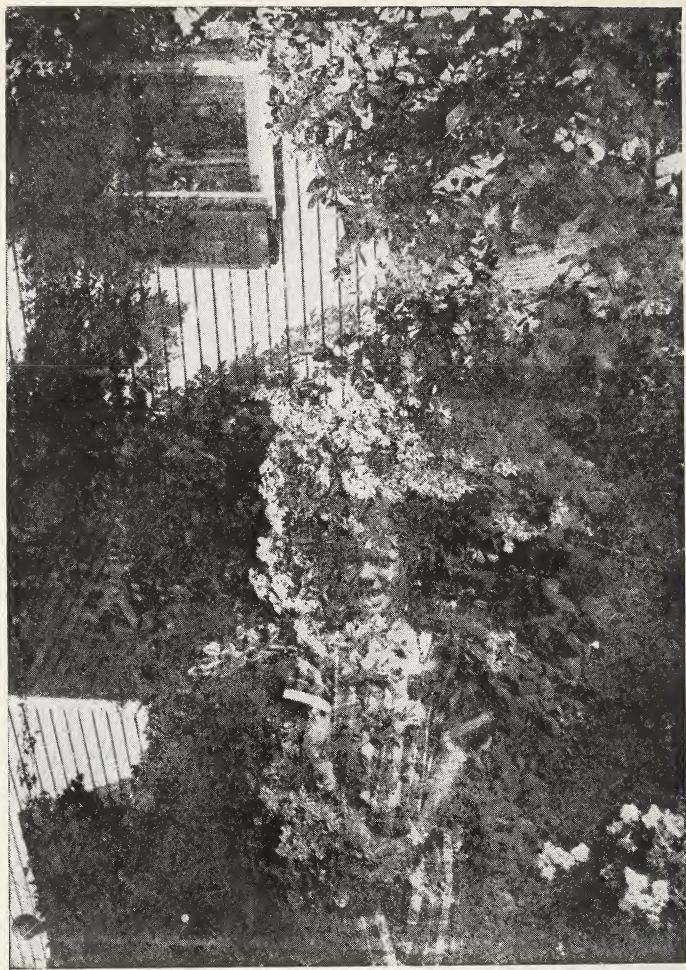
WORK AND PLAY FOR
LITTLE GIRLS

* * *

HOUSEKEEPING FOR
LITTLE GIRLS

* * *

GARDENING FOR
LITTLE GIRLS



PUZZLE PICTURE,—FIND THE LITTLE GIRL

GARDENING FOR LITTLE GIRLS

BY
OLIVE HYDE FOSTER ✓

AUTHOR OF
"COOKERY FOR LITTLE GIRLS"
"SEWING FOR LITTLE GIRLS"
"HOUSEKEEPING FOR LITTLE GIRLS"



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DEDICATED TO

Junior and Allan,

*Two of the dearest children that ever showed
love for the soil.*

1917-8-11



Preface

Children take naturally to gardening, and few occupations count so much for their development,—mental, moral and physical.

Where children's garden clubs and community gardens have been tried, the little folks have shown an aptitude surprising to their elders, and under exactly the same natural, climatic conditions, the children have often obtained astonishingly greater results. Moreover, in the poor districts many a family table, previously unattractive and lacking in nourishment, has been made attractive as well as nutritious, with their fresh green vegetables and flowers.

Ideas of industry and thrift, too, are at the same time inculcated without words, and habits formed that affect their character for life. A well-known New York City Public School superintendent once said to me that she had a flower bed every year in the children's gardens, where a troublesome boy could always be controlled by giving to him the honor of its care and keeping.

GARDENING FOR LITTLE GIRLS

The love of nature, whether inborn or acquired, is one of the greatest sources of pleasure, and any scientific knowledge connected with it of inestimable satisfaction. Carlyle's lament was, "Would that some one had taught me in childhood the names of the stars and the grasses."

It is with the hope of helping both mothers and children that this little book has been most lovingly prepared.

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NOTE

As the desire is to give the widest possible range of information about the plants and flowers mentioned herein, and space forbids going into details in each case, the writer has endeavored to mention all the colors, extremes of height, and entire season of bloom of each kind. But the grower must find out the particular variety obtained, and NOT expect a shrubby clematis to climb, or a fall rose to blossom in the spring!

**GARDENING FOR
LITTLE GIRLS**

A garden is a lovesome thing, God wot!

Rose plot,

Fringed pool,

Fern'd grot—

The veriest school

Of peace; and yet the fool

Contentends that God is not—

Not God! in gardens! when the eve is cool?

Nay but I have a sign:

'Tis very sure God walks in mine.

—*Thomas Edward Brown.*

GARDENING FOR LITTLE GIRLS

CHAPTER I

First Steps Toward a Garden

And because the breath of flowers is far sweeter in the air (where it comes and goes, like the warbling of music) than in the hand, therefore nothing is more fit for that delight than to know what be the flowers and plants that do best perfume the air.

—*Bacon.*

If you want a flower garden, you can begin work as early as March. Does that sound strange, —with cold winds and occasional snow? Ah, but the plans should all be laid then, and many things started in the house.

Four steps must be taken before starting actual work:

First.—Find out what space you can have for your garden.

Second.—Consider the soil, situation, surroundings.

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Third.—Make a list of seeds, bulbs, etc., desired.

Fourth.—Decide on planting with view to height and color.

As to the first step, find out positively where you can have your garden. It makes considerable difference whether you can have the whole back yard, a plot along the walk, a round bed in the center of the lawn (only worse than none at all!), or a window-box. You can not very well decide on a single plant until this is settled.

As to the second step, learn all you can about the soil, situation, surroundings. Is your ground rich or poor? If light and sandy, you can grow such flowers as nasturtiums and mignonette. By adding fertilizer you can have poppies, roses, and dahlias. If the ground is heavy and stiff with clay, you can still have your roses and dahlias if you will add both manure and sand. So find out what kind of earth you are going to work with. Quite poor soil will grow sweet alyssum, California poppies, coreopsis and geraniums, while rich soil is needed for asters, larkspur, zinnias and marigolds. And think about your location (a dry spot being necessary for portulaca, and a cool, moist place for lily-of-the-valley), as well as bear in mind whether your garden is sheltered and warm or exposed to the chilly winds. Any desert

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can be made to blossom as the rose,—if you only know how.

As to the third step, make the list of the seeds, bulbs, etc., that you would like, with the idea of having some flowers in bloom the whole summer long. If you are lucky enough to have a kind friend or neighbor give you of her store, they will probably be good and come up as they should. If you have to buy, though, be sure to go to a first-class, reliable dealer, for you don't want to waste your time and money on old things that won't grow.

Then last of all, decide on your planting from this list with a view to height and color, so that you will arrange to the best advantage,—the nasturtiums which climb, for instance, going to the back of the bed against wall or trellis, while the dwarf variety should be at the front.

BIG WORDS FOR COMMON THINGS

To select your flowers intelligently, though, you must know something about their nature, habits, and tendencies, and certain words always found in seed catalogues and garden books may be puzzling to a beginner.

- a. *Annuals*, for example, are the plants that live but a year or a single season.

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- b. *Biennials*, however, continue for two years before they perish, making roots and leaves the first year and usually flowering the second.
- c. *Perennials* are the kind that continue for more than two years.
- d. *Deciduous* refers to the shrubs and trees that lose their leaves in the fall.
- e. *Evergreens* are those that keep their verdure the whole year round.
- f. *Herbaceous* plants may be annual, biennial or perennial, but they have a stem that does not become woody, and that dies down after flowering.
- g. *Hybrids* are plants produced by "crossing," or mixing two distinct varieties.

PLANT NEEDS

All plant life, you must understand, requires five things,—WARMTH, LIGHT, AIR, WATER and FOOD. But plants differ as much as people, and some need more of one thing than they do of another. Some grow best in sunlight, others in the shade; some in sand, others in rich soil. You will have to find out what each kind requires. The food properties needed in the soil have some big names, too,—*nitrogen*, *potash* and *phosphoric acid*, all of which are found in farm manures. If you can not conveniently get these, however, florists and seedmen can supply you with other fertilizers more easily handled.

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THE SEED NURSERY

If you are just getting ready to start your garden, the annuals,—the plants that flower from seed the first season though they do not come up again,—will probably interest you most as they give the quickest returns. Many kinds can be started in the house in March, and for this purpose any kind of a shallow box will answer. Bore holes in the bottom and put in a layer of broken pottery or stones, to permit drainage, so the roots will not rot. Fill three or four inches deep with good soil, after pulverizing and taking out all sticks and stones.

RULES FOR INDOOR PLANTING

Mark grooves in seed boxes (or “flats”) with a stick, in parallel lines.

Plant seeds only about their own depth.

Scatter thinly to avoid crowding.

Press soil down firmly after seeds have been covered.

Keep the earth moist by means of a fine spray, or sprinkle with a whisk broom. The ordinary sprinkler lets out the water with such force as to wash the seeds clear out of the ground.

The very finest seeds should be *sprinkled* lightly—and thinly—over the pulverized soil and then pressed into the earth with a small board.

The different seeds should be sown in separate

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rows, and the names plainly marked on the edge of the box, so you will not become confused, or forget what you are growing.

Cover the boxes with glass or a newspaper for the first week, to keep the earth moist and warm until the seeds sprout.

FAMILIAR ANNUALS

Even as early as March you can start in the boxes in this way any of the following annuals, which will bloom at the time mentioned or even earlier:—

Ageratum, blue, good for edging; blooms for three months during summer.

Asters, white, pink, red, purple; early in the fall.

Alyssum, sweet, white; from May to November.

Amethyst, blue, violet, white; flowers all summer.

Balsam, white, red, yellow; from July to middle of September.

Chrysanthemum, tricolor; August to middle of October.

Cosmos, white, pink, crimson; August to November.

Cypress vine, red, and white starry blossoms; June and July.

Godetia, red, white; July to October.

Moonflower (Japanese morning-glory), white, a vine; August to September.

Pansy, all shades and combinations, of white, yellow, purple; July on.

Chinese pink, white, rose, maroon; May to August.

Salvia, red; August to frost.

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Ten Weeks' Stock, white, pink, purple; June and July.

Zinnia, red, yellow, magenta; July to November.

EASILY GROWN PERENNIALS

Both the perennials and the biennials following should all blossom the first year if started in the house in March:—

Gaillardia, red, yellow.

Forget-me-not, lovely blue.

Larkspur, blue.

Snapdragon, white, red, purple, yellow, pink.

Sweet William, white, pink, red, maroon, plain, varigated.

Coreopsis, yellow.

Cupid's Dart, blue.

Iceland Poppy, yellow, white, scarlet.

Get as many as you can—and your space will permit,—of all the lovely old perennials and the bulbs that come up every season with little or no care. One of the oldest,—now deserted—farm-houses on Long Island, still carries in its dooryard the impress of some gentle flower-lover long since passed away, in its annual spring beauty of daffodils and lilies-of-the-valley. And the few bulbs and pips transplanted from there to my own garden, have thrived and spread so profusely that I, too, can pass them on to others.

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HARDY FLOWERS ALL SUMMER

With carefully chosen bulbs and perennials alone, it is possible to have a succession of lovely blooms. In March your heart will be made happy with snowdrop and crocus; in April with violet, daffodil, narcissus, hyacinth and tulip; in May and June with spirea, peony, iris, forget-me-not, columbine, baby's breath, bleeding heart, mountain pink, candytuft, Chinese pink; in July and August, golden glow, hollyhock, larkspur, hardy phlox, snap-dragon; September and October, sunflower, dahlia, gladiolus and aster, with November closing the season with all kinds of beautiful chrysanthemums. And many of these often come earlier than expected, or stay later. How easily raised are they by the person with little time!

CHAPTER II

Planning and Planting the Flower Beds

God the first garden made.—*Cowley.*

WHILE the snow is on the ground, you can be deciding on the best place for your garden, and finding out the kind of flowers and vegetables best suited to your soil and locality.

Write to your Representative at Washington, requesting the seeds he may have to give away. Write to two or three prominent seed firms for catalogues, and look over the garden books at your Public Library. Then if you do not quickly find yourself suffering from a violent attack of Garden Fever, you might as well give up, and not attempt to have a garden, for you will be lacking the real love and enthusiasm that count for success.

Did you ever realize that gardens differ as much

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as people? "No two gardens, no two human faces, were ever quite alike," says one writer, and you want to make yours expressive of yourself. So before taking another step, study your grounds, large and small,—for if you can have only part of a tiny plot, you still have many possibilities of expressing your own ideas and taste.

The garden is for the personal pleasure of the family, so DON'T put it out in front, for the careless passerby. Choose a more secluded spot where, if you wish, you can train a vine to shade your seat when you want to sit down and enjoy the birds, butterflies and flowers.

EASY RULES FOR ARTISTIC PLANTING

Right here is the place to stop and draw a map of your proposed garden, and mark off the spaces for your chosen plants. You might draw half a dozen plans, and then choose the most suitable. Only never forget the simple rules of a famous landscape gardener:—

1. Plant in masses, not isolated.
2. Avoid straight lines.
3. Preserve open lawn centers.

When you have decided on the location of your

GARDENING FOR LITTLE GIRLS

garden, coax some one stronger than yourself to dig up the ground thoroughly, and spade in some fertilizer,—preferably farmyard manure. Plants live on the tonic salts they draw out of the soil through their roots, as much as they do on the carbonic acid gas which they take out of the air through their leaves. So have the ground nourishing, and also nicely pulverized and free from sticks and stone, that the little rootlets can easily work their way through and find their needed nutriment.

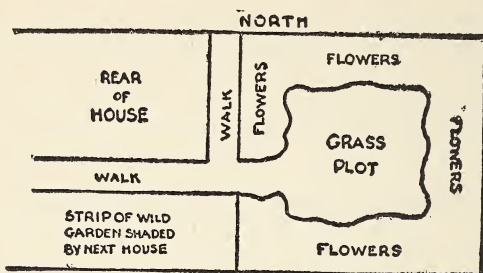
Never forget that third rule before mentioned,—“Preserve open lawn centers.” A beautiful lawn is as satisfying to the eye as flowers, so never spoil one by cutting it up with beds. They can be put along the sides, used for bordering walks, and nestled close to the house.

PLAN FOR SMALL BACK YARD

One of the loveliest gardens I know is at the back end of a city lot, not more than thirty feet square, with a plot of velvety grass in the center. The irregular border surrounding this bit of lawn is a mass of flowers from earliest spring until black frost,—from March until December,—and delights the whole neighborhood. The secret lies in the fact

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that the owner knows how to plant for succession of bloom. The ground is laid out this way.



PLAN FOR A SMALL BACK YARD

If you can have only a single flower bed, however, try to get it in a sunny, protected spot, preferably facing south, where the cold winds of early spring and late fall will do the least damage. Make a list of the flowers that like such conditions,—and most of them do,—and then pick out those you prefer, writing after each name the time that it blooms. Be sure to select some of each of the early spring, late spring, summer, early fall, and late fall, so that you will have flowers to enjoy the whole season through.

SUCCESSION OF BLOOM

For example, you can choose first from the crocus, snowdrop, scilla, the hardy candytuft that rivals the snow for whiteness, and the tiny creep-

GARDENING FOR LITTLE GIRLS

ing phlox that will carpet your bed with pink; next, from the daffodil, narcissus and jonquil groups, with the tulips,—all of which must be set out in the fall for bloom in April and May: then the iris in May and June. Sweet alyssum, nasturtiums, corn flowers, Shirley poppies and cosmos (all annuals), you can count on blooming around New York from July to black frost; dahlias from August to black frost, and monthly roses the entire summer,—with a tidal wave in June. (I know, for I have seen them all, over and over again.)

Many of the annuals can be started indoors, or in a glass-covered box outside. Then when the early flowering bulbs have faded, you can turn their green tops under the ground, first to allow the sap to run back into the bulb (the storehouse for next year), and next to decay and fertilize the soil. The annual seedlings can then be placed right on top! You thus avoid bare, ugly spots, and keep your garden lovely.

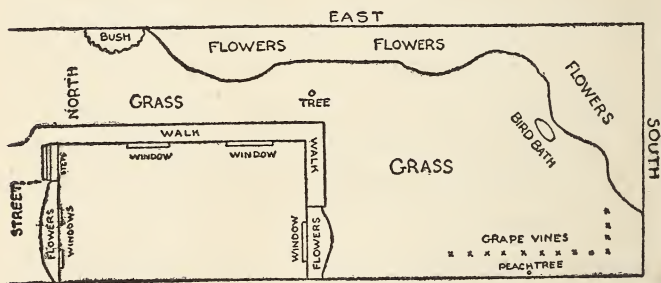
Dahlias planted out about the first of June will bloom from early fall until cold weather sets in; and certain roses, like the Mrs. John Laing and all of the hybrid teas, will flower nearly as late. In fact, in the famous rose garden of Jackson Park, Chicago, as well as in private grounds around New York, I have seen roses blooming in December.

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You hardly need be afraid of crowding, either, if you will be particular to keep out the weeds, and occasionally work into the soil some bone-meal for fertilizer. Water in dry weather. This does not mean top sprinkling, for that is decidedly injurious. When the ground is dry, soak it thoroughly.

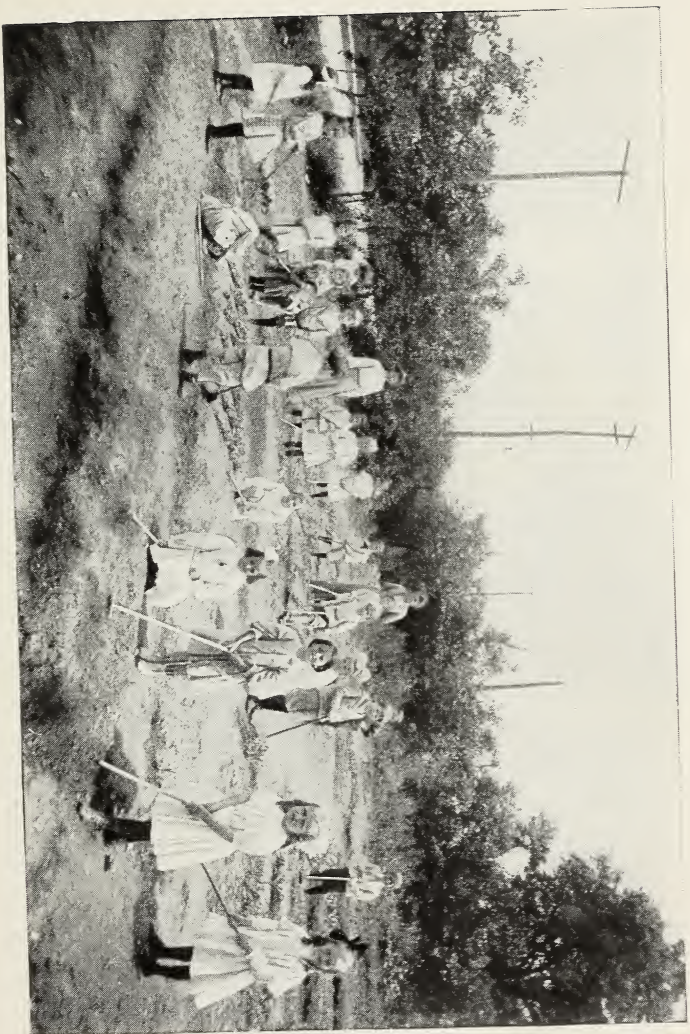
A CITY GARDEN

If you live in a city, you may be interested in a garden I have seen, which ran along the side and rear end of a long, narrow lot. The tallest flowers,—dahlias and hollyhocks,—were at the back of the



AN ARTISTIC ARRANGEMENT OF A NARROW CITY LOT

bed, at the extreme end, and although late in flowering, formed a beautiful green background for the rest all summer. The first irregular section was given up to the blues, and—planted with both an-



FIRST WORK IN THE SPRING

GARDENING FOR LITTLE GIRLS

nual and perennial larkspur, and cornflowers,—kept the dining-table supplied with blossoms to match the old blue china until the frost came.

Frost, by the way, you will find of two kinds,—hoar frost, which the Psalmist so vividly described when he said, “He scattereth the hoarfrost like ashes,” and which injures only the tenderest flowers; and black frost, which is of intense enough cold to freeze the sap within the plant cells, so that when the sun’s heat melts this frozen sap the plant—leaf and stalk—wilts down and turns black. Therefore, both in the early spring and the late fall, you must watch out for Jack, whichever garb he dons, and give your tender plants some mighty covering.

A LITTLE BED FOR A LITTLE GIRL

If you can have only one small bed, however, you can get a lot of pleasure out of it most of the season if you will carefully choose your plants. Pansies set along the outer edge will blossom until mid-summer if you keep them picked and watered every day; and verbenas, which have the same harmonizing shades, you can count on blooming until

GARDENING FOR LITTLE GIRLS

late in the fall. They would be attractive in either of the following simple designs:



FLOWERS THAT WILL BLOOM FROM EARLY SUMMER UNTIL FROST

Candytuft for a border, with petunias in the center, is another combination that should blossom from June until frost. Poppies and cornflowers would also last all summer if you would keep out part of the seed and sow a couple of times at intervals of several weeks. The combinations of red and blue is very pretty, too. Sweet alyssum, with red or pink geraniums, would be lovely all season. For an all yellow bed, plant California poppies to bloom early in the border, and African marigolds, or Tom Thumb nasturtiums to bloom in the center from July on late into the fall. With any of the combinations suggested you could gather flowers almost any time you pleased, for they are all profuse bloomers.

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WINDOW BOXES

If you are a little city child, and can have only a flower box in a window or along a porch-rail, cheer up! There is still a chance for you to have posies all the long hot days. After having your box filled with good, rich soil on top of a layer of broken crockery or stones,—for drainage, you know,—you can plant running nasturtiums along the edge for a hanging vine. Inside of that plant a row of the blue lobelia, or set in a few pansies already in bloom. Then you would have room for still another row of taller plants,—say pink and white geraniums, with a fern or two. Another pretty box could be made by putting Wandering Jew or “inch plant” along the edge for the drooping vine, then blue ageratum for your edging, with next a row of lovely pink begonias. As it takes a number of weeks for any seeds to grow and come to flower, you might better save your candy pennies and buy a few blooming plants from the spring pedlar. They will gladden your heart while waiting.

All kinds of green add to these little boxes, and all the white flowers soften and help to blend the bright colors. China asters, in white, pink, and lavender, are lovely in a window box, and if started

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in shallow trays or old pots early in the spring, can be transplanted later. Then when your early flowers have seen their best days, you can remove them, put in your asters, and have beauties all fall.

CHAPTER III

Flowers that Must be Renewed Every Year--(Annuals)

And 'tis my faith that every flower enjoys the
air it breathes.

—*Wordsworth.*

If you want flowers that grow quickly, plant annuals! Some will bloom within six weeks, so if you can help out meantime with some transplanted roots and bulbs, you will have flowers from the first of the season.

“Plant thickly,” says one writer. “It is easier and more profitable to grow flowers than weeds.”

The following annuals can be sown outdoors late in April, as far North as New York, in ordinary

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seasons,—only remember that those marked with a * do not like to be transplanted: —

Alyssum	Phlox Drummondi
Aster	Pink, Chinese
Candytuft	Salvia
Chrysanthemum (Annual)	Stock, Ten Weeks'
Coreopsis (Annual)	Zinnia
Cosmos	* California Poppy
Godetia	* Cornflower
Larkspur (Annual)	* Mignonette
Marigold	* Morning glory
Nicotiana	* Nasturtium
Pansy	* Portulaca
Petunia	* Sweet Sultan

OUTDOOR PLANTING

Have the soil in your flower bed made fine and light with sand and fertilizer, and entirely free from sticks and stones. If it should happen to be already too sandy, add black loam or leaf mold. (Either father or brother will probably have time to help you get this right.)

Plant your seeds evenly, and rather sparingly if you do not want to pull up a lot later on account of being crowded. And you can plant either in lines or scatter in patches in bed or border, as you prefer, only be sure that the seed is covered about four times its own depth. A few things, like pop-

GARDENING FOR LITTLE GIRLS

pies and portulaca, have such tiny seeds that it is best to mix them with half a teaspoonful of fine soil, and scatter it where you wish, afterwards pressing down firmly with a small board.

TRANSPLANTING—ANNUALS

When your plants have developed a few leaves, and are big enough to handle, prepare to transplant them. This exercise does them good, and while a few resent it, the rest will grow better and be stronger. Choose morning or evening for the work, although it can be done at any time on a cloudy day. (One of my friends loves to do her transplanting in the rain!) Be sure that the ground is thoroughly damp, even if you have to sprinkle it well beforehand.

PUDDLING

Lift each seedling with a spoon, so as to keep a ball of the moist earth around the roots, set it in a hole made where you want your flower to grow, and then fill up this hole with water before you begin to put in the rest of the soil. This is called puddling, and will enable you to do your transplanting with the least possible disturbance to the

GARDENING FOR LITTLE GIRLS

roots. Next add all the soil necessary to fill up the hole, and press firmly around the plant. Then cover with an old can or berry box, or even a cone of newspaper held in place with stones, until the seedling has had time to get used to its new surroundings. And remember that this "puddling," followed by protection from the sun, will enable you to transplant almost anything you wish, successfully.

SWEET PEAS

Sweet peas require peculiar treatment for an annual. As early as the ground can be worked,—about the middle of March around New York,—get some one to dig you a trench (and it is best to have it run north and south), about fifteen inches deep. Have put in this trench a layer of well-rotted manure, then a layer of soil, a sprinkling of wood ashes, and then another layer of soil, filling the trench until it is left only six or eight inches deep. Soak your seeds over night in warm water to make them start more quickly, and then plant them two inches apart, in a double row. Cover with only a few inches of soil until they sprout, and then gradually fill up the trench as the vines grow. Train them on brush or chicken wire, and keep

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them well watered in order to get the best results.

The latest method I have had recommended for growing sweet peas,—but which I have not tried,—is to have the soil just as carefully prepared, but then to rake it smooth, make a straight drill only half an inch deep, and plant 3 seeds every 6 inches in the row. If all three grow, pull up the two weakest, leaving only the best plant every 16 inches apart. This way,—with plenty of water and cultivation, is said to produce the very finest kind of flowers. You might try a few on the side.

During the hot weather put grass clippings around the roots to help keep them moist and protected from the hot sun. Cut the flowers every day in order to prolong their blooming.

A word about names, though, before we go a step farther. I intended at first to give you only the common names, despite the protests of a very good friend,—an English botanist. To clinch her argument one day, she exclaimed with considerable heat, “Why, what they call ‘baby’s breath’ here on Long Island might be ‘infant’s sneeze’ up in Connecticut! But if you tell the children it’s real name is GYPSOPHILA, they’ll never be mistaken.”

And later, when I found that foxglove (originally Folk’s glove, alluding to the “little folk,” or

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fairies) has been known also—according to Holland—as Thimbles, Fairy Cap, Fairy Fingers, Fairy Thimbles, Fairy Bells, Dog's Fingers, Finger Flowers, Lady's Glove, Lady Fingers, Lady's Thimble, Pop Dock, Flap Dock, Flop Dock, Lion's Mouth, Rabbit's Flower, Cottages, Throatwort, and Scotch Mercury, I concluded I would better urge you to remember its Latin name, DIGITALIS, by which the plant is known the world over.

The botanical terms will easily stick in your mind, too, because they are unusual. Then people who are familiar with flowers will know exactly what you are talking about, and you yourself will always have a certain pride in the scientific knowledge that enables you to call things by their right name.

You will see, if you study the lists given, what a simple matter it is to plan for a garden, big or little, and with reasonable care you will be rewarded with flowers throughout the season. The following list will give you more explicit information about the ones people like best:—

FLOWERS THAT MUST BE RENEWED EVERY YEAR

A GUIDE TO THE COMMON ANNUALS

NOTE.—The time that they will bloom and the quality of your flowers will depend on the time you sow your seed, on your soil, your location, and your care. The dates given apply to the locality around New York, and will be earlier if you are South, and later if North, of this section. Both the height and the flowering time of the same plants vary with the different varieties, so find out the particular kind you get. The richer the soil, the finer the flowers, as a rule, and therefore fertilizer of some kind should be applied at least once a season, about the time the buds are forming.

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
<i>Ageratum</i> (<i>Ageratum conyzoides</i>)	Blue White	8 in.	March	May	Edging	Sun	June to frost
Alyssum, Sweet	White	4 to 8 in.	March	April to Sept.	Edging	Sun	June to frost
Antirrhinum, see Snapdragon							
Aster, China (<i>Callistephus hortensis</i>)	White Pink Violet	18 to 24 in.	March	April, May	Bed	Sun	Aug. to Sept.
Baby's Breath (<i>Gypsophila</i>)	White	1 to 2 ft.		April	Border	Sun	May (sow again)
Bachelor's Buttons, see Corn- flower							
Balsam (<i>Impatiens balsamina</i>)	White Red Yellow	1 to 2 ft.	March April	May	Border Bed	Sun	July to Oct.
California Poppy (<i>Eschscholzia Californica</i>)	Yellow White Orange	12 in.		April (sow in succession)	Edging	Sun	June to frost

FLOWERS THAT MUST BE RENEWED EVERY YEAR—(Continued)

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Candytuft (<i>Iberis</i>)	White Pink Red	6 to 8 in.		April, and every two weeks after	Edging	Sun	June to frost
Castor-oil Bean (<i>Ricinus</i>)		3 to 8 ft.		April	Tropical effects	Sun	Until frost
China Aster, see Aster							
* Coreopsis (<i>Coreopsis lanceolata</i>)	Yellow	1 to 3 ft.		April	Border Bed	Sun	June to Oct.
Cornflower (<i>Centaurea cyanus</i>)	Blue	1 to 2 ft.		April	Border Bed	Sun	June to frost
Cosmos	White Pink Crimson	4 to 8 ft.	March	April	Back of border	Sun	July to frost
Cypress Vine (<i>Ipomaea quamoclit</i>)	Red White	10 to 20 ft.	April	May	Screen	Sun	June, July
Eschscholtzia, see California Poppy							
† Forget-me-not (<i>Myosotis</i>)	Blue	6 to 18 in.		April to July	Bed	Half shade	April to fall
Floss Flower, see <i>Ageratum</i>							
Gilliflower, see Ten Weeks' Stock							

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Godetia	White Red	1 to 2 ft.	March	May	Border Bed	Shade or sun	July to Oct.
Gypsophila, see Baby's Breath							
Hyacinth Bean (<i>Dolichos</i>)	Purple White	10 to 20 ft.		May	Screen	Sun	July to frost
Lady's Slipper, see Balsam							
Larkspur, Annual (<i>Delphinium</i>)	White Pink Blue	1 to 3 ft.		April	Border Bed	Sun	July to frost
Lobelia (<i>Lobelia erinus</i>)	Blue	6 to 12 in.	March	May	Edging	Sun	June to Nov.
Lupin (<i>Lupinus</i>)	Most shades	2 ft.	Successive sowing	From May on	Border Bed	Partial shade	From June on
Marigold, African (<i>Tagetes erecta</i>)	Yellow	2 ft.	March	May	Border Bed	Sun	Aug. to frost
Mignonette (<i>Feseda odorata</i>)	White Red Yellow	1 ft.		April and July	Border Bed	Sun	June to Oct.
Morning-glory (<i>Convolvulus</i>)	White Pink Purple	10 to 20 ft.		April	Vine	Sun	July to frost
Myosotis, see Forget-me-not							

FLOWERS THAT MUST BE RENEWED EVERY YEAR—(Continued)

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Nasturtium (<i>Tropæolum</i>)	Yellows to reds	1 to 10 ft.		April May	Climber Dwarf	Sun	July to frost
Nicotiana, see Tobacco Plant							
* Pansy (<i>Viola tricolor</i>)	No red	6 to 12 in.	Feb.	April May	Bed	Half shade	May to Oct.
Petunia (<i>Petunia hybrida</i>)	White to magenta	1 to 2 ft.		On surface in May	Border Bed	Sun	June to frost
Phlox, Annual (<i>Phlox Drummondii</i>)	White Pink Red	1 ft.	March	May	Border Bed	Sun	June to frost
† Pink, Chinese (<i>Dianthus Chinensis</i>)	White Pink Rose	1 ft.	Feb.	March April	Border Bed	Sun	All summer
Poppy, Shirley (<i>Papaver rhæas</i>)	White Pink Red	1 to 2 ft.		March, April Later for succession	Bed	Sun	June to Oct.
Portulaca (<i>Portulaca grandiflora</i>)	No blue	6 to 9 in.		May 1st	Carpeting	In dry, sun- ny position	All summer
Rose Moss, see Portulaca							
Sage, Blue or Scarlet, see Salvia							
* Salvia	White Blue Scarlet	3 ft.	March	May	Border Bed	Sun	July to frost

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Scarlet Runner Bean	Red	12 ft.		April	Climber	Sun	July to frost
* Snapdragon (<i>Antirrhinum</i>)	No blue	1 to 3 ft.	March	May	Border Bed	Sun	July to frost
Stock, Ten Weeks' (<i>Matthiola incana</i>)	White Pink Purple	1 to 2 ft.	March	May	Border Bed	Sun	July to frost
Sunflower (<i>Helianthus annuus</i>)	Yellow	3 to 12 ft.		April	Back of bed	Sun	July to frost
Sun Plant, see Portulaca							
Sweet Pea (<i>Lathyrus odoratus</i>)	All colors	3 to 6 ft.		March	Back of border vines	Sun	July to Oct.
† Sweet William (<i>Dianthus barbatus</i>)	White Pink Red	12 to 18 in.		April	Border Bed	Sun	July to Oct.
Tobacco Plant (<i>Nicotiana</i>)	White Pink Red Purple	2 to 5 ft.		May	Border	Sun	July to Oct.
Verbena	No blue	1 ft.	March	May	Border Bed	Sun	June to Oct.
Zinnia (<i>Zinnia elegans</i>)	Yellows to reds	1 to 2 ft.	March	May	Border Bed	Sun	June to Oct.

* A tender perennial, flowering the first year from seed sown early.

† A biennial, flowering the first year from seed sown early.

CHAPTER IV

Flowers that Live Through Two Years

In all places then, and in all seasons,
Flowers expand their light and soul-like wings,
Teaching us by most persuasive reasons,
How akin they are to human things.
—*Longfellow.*

BETWEEN the flowers that we have to plant every year,—the annuals,—and those that after once being started continue to greet us summer after summer,—the perennials,—comes a little group of old favorites that has to be planted one summer (and then generally protected from the cold), in order to bring them to their full beauty the second year. And as few of them self-sow, it is necessary to plant and carry over every season.

GARDENING FOR LITTLE GIRLS

The biennial seeds are best sown in the seed nursery, where they can be watched and protected. In the late summer the young plants will be big and strong enough to set out in the border, although you must give them a light covering of leaves and litter. The seeds started in July and August, however, better be left protected in the nursery and moved in the early spring.

The dainty blue forget-me-not, or *myosotis*, is one of the best loved of this class. Some varieties are hardy, and often found growing wild. It generally does best in a damp, partly shaded location. It grows from 6 to 18 inches high, according to the different kinds, which blossom most of the summer. The seeds of biennials seldom produce flowers the first summer, but several—and among them the *myosotis*,—after being grown a few years in the same spot, come up like perennials, on account of sowing themselves.

The foxglove is another of the few biennials that are hardy, and it also likes a cool, shady spot. If the plants come up thickly, transplant part of them to any well-prepared, rich ground, and keep moist and well cultivated until the middle of September, when you should move them again to their per-

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manent home. Foxgloves, like forget-me-nots, sow themselves, and the little plants coming up this way should be transplanted and given plenty of room to grow and become strong before their time to bloom. Do not forget to cover during the winter!

English daisies (which are tender perennials), and pansies (which generally are grown as annuals), can both be started in the seed nursery in August, thinned out and protected before cold weather sets in, and then moved to where you wish them to bloom, in the early spring.

Canterbury bells do best when the seed is sown the middle of April in ground that is rich, well prepared, moist, and partly shady. The middle of July move to a temporary place, and set the plants 6 to 8 inches apart. Then early in October transplant to where you want them to blossom the next season. But before the frost comes, protect these tender little plants with some old berry boxes, then straw or leaves over the top, and in the spring work a small quantity of fertilizer around the roots. Tie the stalks as they begin to get tall, to stout stakes, to prevent their being blown over by storms: and if you will keep cutting off the old flowers so they will not go to seed, you can coax your plants to

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bloom an extra month or six weeks. Properly treated, they will last from July to the middle of September. But to enjoy these lovely visitors regularly, it is necessary to plant the seed every year.

Of the border carnations, the Chabaud and Marguerite types are hardy enough to stand the winter if slightly covered, and will flower profusely the second year, but they make off-shoots, which bring to bloom a few weeks after sowing.

Hollyhocks from seed do not blossom until the second year, but they make off-shoots, which bring flowers every season thereafter. And as they sow themselves, people often mistake them for perennials. They come both single and double, and are especially lovely against a wall or a green background.

The evening primrose, tall and stately, with large yellow flowers, is easily grown in almost any soil. It thrives in almost any soil, and blooms the entire summer.

Of the wallflowers, the biennial variety will blossom most of the summer if grown in a moist, shady place and not allowed to go to seed. These come in yellows, reddish brown and purplish brown. They need winter protection.

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The horned poppy, though a biennial, will flower the first year if started indoors in March. It likes an open, sunny spot, and if old flowers are kept picked off, will bloom all summer.

Sweet William is another old-fashioned garden favorite that is usually considered a perennial, but which does its best the second year from seed. As it self-sows, it goes on forever, like Tennyson's brook, once it gets started. In protecting, however, do not get fertilizer directly over the crown, or it will cause decay.

Mullein pink, or Rose Campion as it is often called, is another of our grandmothers' pets, and if started very early, will flower the first season.

Now all of the biennials I have described are easily grown, and sure to bring great pleasure. And really it is worth while to curb one's impatience, and wait, when necessary, until the second season, for the sake of these lovely hardy beauties.

FLOWERS THAT LIVE THROUGH TWO YEARS

A GUIDE TO THE COMMON BIENNIALS

Note.—English Daisies (a perennial), Forget-me-nots, Hollyhocks and Pansies are often started about the 1st of August. Most of the biennials need slight protection during the winter. Remember that in nearly every case seed must be sown every year in order to secure succession of bloom.

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
* Canterbury Bells (<i>Campanula medium</i>)	White Pink Blue Purple	2½ ft.	March 1st	May June	Border	Sun	June, July
* Carnation, Border (<i>Dianthus caryophyllus</i>)	White Pink	1 to 2 ft.		May	Border	Sun	August
† English Daisy (<i>Belas perennis</i>)	White Pink	4 to 6 in.		July Aug.	Border Bed	Sun	April, May
Evening Primrose (<i>Oenothera biennis</i>)	Yellow	5 ft.	Many varieties	May June	Border	Sun	June to Sept.
Forget-me-not (<i>Myosotis</i>)	Blue	1 to 2 ft.	Self-sows	May June	Border	Half shade	April to Sept.
Foxglove (<i>Digitalis</i>)	Pinkish purple White Yellow	3 to 5 ft.		April to June	Border Clumps	Half shade or sun	June, July
Hollyhock (<i>Althaea rosea</i>)	White Pink Rose Yellow Red	4 to 8 ft.	Self-sows Also makes offsets	May, June or Aug.	Back of border or clumps	Sun	July, Aug.

FLOWERS THAT LIVE THROUGH TWO YEARS—(Continued)

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Horned Poppy (<i>Glaucium luteum</i>)	Yellow Orange	6 in.		May June	Border	Sun	July to Sept.
* Mullein Pink (<i>Lychnis coronaria</i>)	White to Crimson	1 to 2½ ft.		May 1st	Border Rockery	Sun	June, July
Rose Campion, see Mullein Pink							
Wallflower (<i>Cheiranthus cheiri</i>)	Yellow to browns and purples	1 to 2½ ft.		May June	Border Rockery	Sun or part shade	May
Pansy, more easily treated as an annual							

* Will blossom the first year from seed that is sown as early as possible.

† A perennial often started in August, so it will bloom the next spring.

CHAPTER V

Flowers that come up Every Year by Themselves (Perennials)

No, the heart that has truly lov'd never forgets,
But as truly loves on to the close;
As the sunflower turns on her god when he sets
The same look which she turn'd when he rose.
—*Moore.*

THAT big word ARISTOCRACY simply means “those who rise above the rest of the community in any important respect,”—and rightly, indeed, are the perennials called “the aristocrats of the garden.” They are strong and sturdy (good points in both people and flowers), and can be depended on to appear about a certain time, make us a nice visit with all their loveliest clothes, and show their appreciation of our attention and care by returning every season with increased beauty and grace.

A few of the perennials, such as the peony and the iris, grow so slowly that generally people

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haven't the patience to wait for them to flower from seed, and instead try to get some roots from their more fortunate friends, or buy from a florist. But I will tell you more about this class in connection with the bulb and tuber families.

THE SEED BED

While a small number of these beauties will bloom the first year if started early in the spring, most of them make their *début* in garden society the second summer. Before that they have to be watched, or they might meet with accident. A good way, therefore, is to have a little bed (preferably a cold frame) for a seed nursery off to one side, in a safe place, where the baby plants can be cared for, protected from cold, and tended like the infants they are, until grown up and old enough to enter the society of bed or border. In such a place the seeds should be planted in fine, rich soil, preferably from the middle of May to the 1st of July, and all carefully marked. Sow thinly, and then cover the seed by sifting over with fine soil from $\frac{1}{8}$ to $\frac{1}{4}$ inch deep. Sprinkle very lightly by means of a whisk broom dipped in water, so as not to wash out the seed, and if you possibly can, cover with a piece of glass. Keep in the shade at first,

GARDENING FOR LITTLE GIRLS

and never let dry out. Some of this seed will germinate in less than a week, while some may take so long that you will think it is not going to grow at all! But don't give up; and maybe some day when you have forgotten all about it, you will discover a lot of new babies in your nursery.

TRANSPLANTING PERENNIALS

As soon as your seedlings are big and strong enough to be handled, they must be carefully lifted and set in another part of the nursery, not less than 3 inches apart, protected from the hot sun, and left until they become strong, sturdy children. Then early in the fall, before the middle of September, you can take them up very gently, without disturbing their tiny rootlets, and put them with their friends and relatives in the garden, wherever you wish them to bloom the following summer.

Of course you couldn't,—and you wouldn't want to grow everything you ever saw or heard about! Just think of the fun, however, of picking out a small number that will be sure to give you flowers, one after another, from earliest spring until cold weather! Yet the following list, suggested by one authority, is easy to get and little trouble to care for:

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PERENNIALS FOR A WHOLE SEASON'S BLOOM

Creeping Phlox (*Phlox subulata*); white, rose, lavender; bloom April and May.

Lily-of-the-Valley (*Convallaria majalis*); white; May, June.

Bleeding Heart (*Dicentra spectabilis*); rose pink; April through June.

Iris (*Fleur-de-lis*); white, purple, yellow; April to July.

Peony (*Paeonia officinalis*); white, rose to crimson; May, June.

Larkspur (*Delphinium*); blues; June, July, September.

Balloon Flower (*Platycodon*); blue, purple, white; July to October.

Phlox, Hardy (*Phlox paniculata*); no blue nor real yellow; June through September.

Golden Glow (*Rudbeckia laciniata*); yellow; August.

Blanket Flower (*Gaillardia aristata*); yellow, red; July to October.

Boltonia (*Boltonia latisquama*); lilac; August to October.

Sunflower (*Helianthus*); yellow; July to October.

The fault that I would find with the gentleman's list is that he has omitted chrysanthemums, which could be substituted for sunflowers to most people's satisfaction,—and which also would bloom as late as November. Also I should prefer columbine to



KIM AND COLUMBINE

GARDENING FOR LITTLE GIRLS

his bleeding hearts,—and the golden-spurred variety will bloom from early May to early August! Above all, instead of boltonia, I would use the adorable snapdragons, which, although considered a “tender perennial,” will survive cold weather if well protected.

But then, as I once heard, “A man’s garden is like his wife, whom he never would think of comparing with anybody else’s.” So you don’t have to follow any one’s choice. Just make a list of the flowers that you like, find out when they bloom, and then choose as few or as many as you have room for, remembering to plan for something lovely every month of the blooming season.

One note of warning, however. After you have made your list, consult some friend that is a successful gardener, and make sure that what you have chosen will thrive in your particular locality. If you find it does not, strike it off, and put in something that will.

FLOWERS THAT COME UP EVERY YEAR BY THEMSELVES

A GUIDE TO THE COMMON PERENNIALS

NOTE.—A few of these will blossom the first summer, if started early. Also, some varieties of the same plant will flower in the spring, others in the fall. Make sure which kind you get.

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Alyssum (<i>Alyssum saxatile</i>)	Rich yellow	1 ft.		May June	Rockery Edging	Half shade or sun	April, May
Anemone, Japanese (<i>Anemone Japonica</i>)	Rose White	2 to 4 ft.		May June	Border Bed	Half shade or sun	Sept., Oct.
Aster, Hardy (<i>Aster Novæ-Angliæ</i>)	White Pink Lavender Purple	2 to 5 ft.		May June	Anywhere	Shade or sun	Aug. to Oct.
Baby's Breath (<i>Gypsophila paniculata</i>)	White	2 to 3 ft.		May June	Rockery Border	Sun	June, July
Balloon Flower (<i>Platycodon</i>)	White Blue	1 to 3 ft.		May June	Border	Sun	July to Oct.
Begonia, Hardy (<i>Begonia Evansiana</i>)	White Pink Rose	1 to 2 ft.		May June	Border	Sun	June to Aug.
Bellflower (<i>Campanula</i>)	White Blue	1 to 3 ft.		May June	Border	Sun	June, July
* Blanket Flower (<i>Gaillardia aristata</i>)	Red Yellow	3 to 5 ft.		May June	Border Bed	Sun	July to Oct.

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Bleeding Heart (<i>Dicentra spectabilis</i>)	Pink	2 ft.		May June	Border Bed	Likes half shade	May, June
Boltonia (<i>Boltonia latisquama</i>)	Lilac	2 to 6 ft.		May June	Border Bed	Sun	Aug. to Oct.
Candytuft, Hardy (<i>Iberis sempervirens</i>)	White	6 to 12 in.		May June	Border Edging	Sun	April, May
Christmas Rose (<i>Helleborus niger</i>)	White	12 to 15 in.		May June	Border	Half shade	Dec. to March, <i>outdoors</i>
Chrysanthemum, Hardy	No blue	2 to 3 ft.		May June	Border Bed	Sun	Sept. to Nov.
Columbine (<i>Aquilegia</i>)	All shades	2 to 4 ft.		May June	Rockery Bed	Sun	May to Aug.
Coreopsis (<i>Coreopsis lanceolata</i>)	Yellow	1 to 2 ft.		May June	Border Bed	Sun	June to Oct.
Daisy, English (<i>Belvis perennis</i>)	Pink White	3 to 6 in.		May June	Bed	Sun	April to June
Delphinium (<i>Delphinium formosum</i> , <i>D.</i> <i>Belladonna</i> , <i>D. Chinense</i>)	Blue to white	2 to 6 ft.	March	May June	Border Bed	Sun	June, July, Sep. Oct. Cut down after each flowering
Flag, see Iris							
† Forget-me-not, Perennial (<i>Myosotis palustris</i>)	Blue	6 to 18 in.		May June	Border	Shade or sun	May to fall

FLOWERS THAT COME UP EVERY YEAR BY THEMSELVES—(Continued)

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
† Foxglove (usually biennial) (<i>Digitalis</i>)	White Purple Rose Yellow	3 to 5 ft.		May June	Border Bed	Half shade	June, July
Fraxinella, see Gas Plant							
Gaillardia, see Blanket Flower							
Gas Plant (<i>Dictamnus albus</i>)	Rose White	2 ½ ft.	Long lived	May June	Border Bed	Sun	June, July
Golden Glow (<i>Rudbeckia laciniata</i>)	Yellow	6 to 8 ft.		May June	Back of border	Sun	July to Sept.
† Hollyhock (<i>Althæa rosea</i>)	All shades	4 to 6 ft.		May June	Back of border or bed	Sun	July, August
Iris	White Purple Yellow Maroon	1 to 3 ft.		May June	Border Bed Clump	Sun	May to July
Larkspur, see Delphinium							
Lupin (<i>Lupinus</i>)	White Blue Pink Yellow	2 to 5 ft.		May June	Border Bed Clump	Sun or half shade	May, June
Madwort, see Alyssum							

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
* Mallow, Musk (<i>Malva moschata</i>)	White Rose	1 to 2 ft.		May June	Border	Sun or shade	July to Sept.
Michaelmas Daisy, see Aster							
Monk's-hood (<i>Aconitum napellus</i>)	Blue to white	3 to 5 ft.	Slow to start	May June	Poisonous	Sun or shade	July to Sept.
Moss Pink, see <i>Phlox subulata</i>							
Mullein Pink (<i>Lycinis coronaria</i>)	White Red	1 to 3 ft.		May June	Border Bed	Sun	June, July
Myosotis, see Forget-me-not							
Myrtle, see Periwinkle							
Pansy (<i>Viola tricolor</i>)	White Blue Yellow Purple	6 to 8 in.	March	April May	Border Bed	Sun or half shade	All summer, with care
Peony (<i>Paeonia officinalis</i>)	White Rose Crimson	3 ft.	Slow grower	May June	Border Clumps	Sun or half shade	May, June
Periwinkle (<i>Vinca minor</i>)	Blue White	6 to 10 in.	March	May June	Trailing vine	Shaded bare spots	All summer
Phlox, Perennial (<i>Phlox paniculata</i>)	No blue or yellow	2 to 3 ft.	Slow	May June	Border Bed	Sun	Aug., Sept.
(<i>Phlox subulata</i>)	White Pink Lavender	2 in.		May June	Carpeting Border	Sun	April, May

FLOWERS THAT COME UP EVERY YEAR BY THEMSELVES—(Continued)

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Pink Grass (<i>Dianthus plumarius</i>)	White Varicolored	1 ft.		May June	Rockery Border	Sun	May, June
Platycodon, see Bellflower							
* Poppy, Iceland (<i>Papaver nudicaule</i>)	White Red Yellow	1 ft.		April May	Border Bed	Sun	June to Oct.
Poppy, Oriental (<i>Papaver orientale</i>)	Scarlet Orange to pink	3 ft.		March April	Border Bed	Sun	June, July
Pyrethrum (<i>Chrysanthemum coccineum</i>)	White Rose Crimson	3 ft.		May June	Border Bed	Sun	June, July
* Rocket, Sweet (<i>Hesperis</i>)	White to purple	2 to 3 ft.		May June	Border Clump	Sun	June to Aug.
Rockmadwort, see Alyssum							
Rose Campion, see Mullein Pink							
Rudbeckia, see Golden Glow							
Sage, see Salvia							
Salvia (perennial)	White Blue	2 to 4 ft.		May June	Border Bed	Sun	May to Sept.
† Snapdragon (<i>Antirrhinum</i>)	No blues	1 to 3 ft.	March	May 1st	Border Bed	Sun	June to Oct.

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Sunflower (<i>Helianthus</i>)	Yellow	2 to 8 ft.		May June	Back of border	Sun	Sept. to Nov.
* Sweet William (<i>Dianthus barbatus</i>)	White Pink Maroon	1 ft.		May June	Border Bed	Sun	June to Aug.
Tickseed, see <i>Coreopsis</i>							
† Wallflower (<i>Cheiranthus cheiri</i>)	Yellows to browns and purples	1 to 2½ ft.		May June	Rock garden or border	Part shade	May
Windflower, Snowdrop (<i>Anemone sylvestris</i>)	White	1 to 1½ ft.		May June	Clump Border	Part shade or sun	April to July

* Will bloom the first year from seed sown in March.
† Perennial in the South, but should be grown annually in the North.
‡ Really a biennial.

CHAPTER VI

Flowers that Spring from a Storehouse (Bulbs and Tubers)

Consider the lilies of the field, how they grow: they toil not, neither do they spin: and yet I say unto you that even Solomon in all his glory was not arrayed like one of these.

—*Matthew vi, 28, 29.*

IF you are going to be a really-truly gardener, you will want to know something about the plants and flowers that you try to grow, so let's have a few words right here about the difference between the bulb and tuber families. They can be classed together because they both spring from what is in fact a storehouse filled one season with food to help them through the next season's bloom!

Hyacinths and daffodils, for example, come from **BULBS**, which are built up, layer on layer, exactly like an onion.

GARDENING FOR LITTLE GIRLS

Dahlias and Cannas, however, grow from a TUBER, which is an underground knob on the stem, quite a little like a sweet potato, and which sends out the shoots that make new plants.

The crocus and the gladiolus both spring from a CORM, which differs from the bulb in that it is solid (not in layers), and from the tuber in that it is not like a potato in shape but oval.

The iris, though, grows from a RHIZOME, a thickened root running along the ground (often half exposed), which throws up the new plants as it spreads.

The bulb and tuber families are treated very much alike. Some of each are left in the ground year after year, like the daffodils and the lilies, while others, like the cannas and dahlias, have to be dug up, allowed to dry a little in the open air, and then stored in a cool, dark place for the winter. The rhizomes do not have to be "lifted," but are increased generally by root division,—cutting off a piece of the root soon after flowering, and planting where it will get a good start before next season's time to bloom.

Some people today would follow Mohammed's advice: "He that hath two cakes of bread, let him sell one of them—for bread is only food for the body, but the narcissus is food for the soul;"

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but few individuals—let alone a nation—would grow so wildly enthusiastic as once did the Dutch, as to spend every last possession to buy tulips! But we dearly love all of these groups, and are using them in increasing numbers every season. The fascinating work of growing certain kinds indoors during the winter I tell you about in the chapter on “The Care of House Plants,” so here we will consider the outdoor culture.

The delicate snowdrop is the very earliest of these visitors, and planted in groups in half-shady places,—like under trees,—where they will not be disturbed, will thereafter take care of themselves. Then quickly follow the lovely crocuses, white, yellow, lavender, purple, and the variegated, which often are planted right where they fall after being scattered broadcast over the lawn,—though if the head of the house cuts the grass before the middle of April they should be set in a bed where they will not be touched.

Hyacinths are beautiful, but personally I do not care much about them in the garden, as they generally have to be planted in masses to get any effect, and need, therefore, to be used in large numbers, are more expensive than the other bulbs, and should be taken out of the ground soon after blooming and stored in a cool place until fall. However,

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one enthusiast that I know plants in rings of 6, and leaves them in the ground!

The daffodil, jonquil and narcissus are three types of the narcissus family, the daffodils usually being distinguished by their long trumpets, while the jonquils and narcissi have the little cup-like centers, and, moreover, are fragrant. They should be planted in the late fall, 4 in. below the surface, in soil that has been enriched 8 in. below the bulb. They increase rapidly, and do not have to be taken up, or even divided for years. If set in a border where their room is needed after they bloom, simply turn the tops down under the soil, and sow over them any low-growing annual, such as candy-tuft or poppies. My friend of the tiny "handkerchief" garden described in Chapter II, has—think of it!—over 1500 of these various spring-flowering bulbs in her border that are treated this way, and never taken up! Yet a few weeks after they have bloomed, the space they occupied is filled with new beauties.

Tulips—but as I told you, they once drove a whole country mad! Today we have probably far more beautiful ones,—and many can be bought in the fall at planting time, for \$1.00 per hundred! Some bloom early, some late; some are short, some tall; some are cheap, some expensive. They will

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grow in partial shade or sun, and can be planted in groups in the border, or in marginal rows for edging. By carefully choosing from both the early and late varieties, you can enjoy your tulips for nearly two months; and by as carefully choosing your colors, have all sorts of artistic combinations. They should be planted 3 or 4 in. deep if the soil is heavy, and an inch deeper in soil that is light, and set 6 in. apart. They will prove a joy to your heart.

Tuberous-rooted begonias supply a much-felt want for lovely flowers in half-shady or shady places. If the bulbs are started in the house in sand in February, they will be in full leaf when ready to set out in May, and will bloom from June until frost. Don't, please don't, plant them upside down, but be sure that the rounded part rests on the soil. They require light, rich earth, with plenty of water, given after sundown.

Cannas only too often are planted in big, showy beds where they break our rule of "open lawn centers." In fact, they are a little hard to place, but look well in a corner, in beds along a drive, or outlining a boundary. The ground should be spaded 2 ft. deep, well fertilized, and then kept watered. Set plants 2 ft. apart.

The iris is one of the most beautiful and most

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satisfactory of all the hardy plants. It grows in almost any soil, and any situation, but does best in rich ground, with plenty of water. It may be planted either in early spring or after August. The dwarf varieties, from 6 to 18 in. high, bloom during March, April and May; the German iris, standing often 3 ft. high, in May; and the marvelous Japanese kinds, sometimes 4 ft., with blossoms 8 to 10 in. across, closing the season in July! (In heavy soil they are not so tall.) When used alone in beds, one prominent grower suggests that the German iris be combined with hardy asters (set in between), and the Japanese with gladioli, to keep a succession of bloom until late fall.

Lilies for the garden are of many varieties, requiring different kinds of treatment. As a general rule, however, when the soil is heavy, set your bulb in a nice little nest of sand, and give a blanket of the same before filling in with the ordinary earth.

Lilies-of-the-valley will grow almost anywhere, but do well in a half-shady position. They should be planted in masses, and fertilized in September. When too thick, they can be transplanted in the early spring. They increase rapidly.

The gladiolus (accent on the i, please,) can get along in almost any kind of soil,—though it does best in rich,—if only it is planted in the sunshine.

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The ground should be well dug up and fertilized beforehand and around New York the corms set as early as April. Then, for succession of bloom, plant at least every 10 days up to July 1st. After they are well started, fertilize with (preferably) sheep manure, dug in around the roots, every two weeks. Cultivate often, and keep well watered. Plant gladioli at least 4 in. apart, and 4 in. deep, and tie up for protection to 4-ft. stakes. Lift your bulbs,—corms, I should have said,—late in the fall, let them dry in the air a few days, and then store in a cool, dark place, free from frost.

Narcissi are described with the daffodils.

Peonies are classed with the Perennials, in Chapter III. Their tuberous roots are best divided and set out in September. They can be left undisturbed for five or six years.

Tuberoses can now be procured which will bloom from May until frost. They are easily grown, with no particular care, and take up very little room. Stake for safety from storms.

The dahlia next,—saved until the last for all the space I could possibly give it! And so popular is this flower today, that some growers raise nothing else!! One man offers us over 700 *named* varieties!!! Moreover, a great big club, known as The American Dahlia Society, has been formed by

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people who are interested in—and wish to help along—the growing of dahlias.

And it's no wonder that they are popular, for no other flower can be grown in the garden that will give as many, as large, as vari-colored and as beautiful flowers as the dahlias. Coming in every shade but true blue, and ranging from the tiny button pom-pom to the largest prim show or the formal decorative,—from the unique collarette to the ragged pæony-flowered, the amateur gardener can hardly believe that they really all belong to one family!

Of such easy culture, too. Anybody can grow them! Any good, well-drained garden soil will do, but must have manure spaded in 10 in. deep and the tubers must be planted in the sun. The poorer the ground, though, the more fertilizer will you have to use. Heavy soil should be dug up and mixed with ashes to make it light. Plant the tubers *lengthwise*—not up and down!—in a drill at least 6 in. deep, and not less than 2½ ft. apart.

For early flowering, put in your bulbs as soon as all danger of frost is past, but do not set near trees or shrubs that would take their nourishment. When they sprout, pull up all shoots but one or two, in order to produce the finest flowers. Keep the ground well cultivated, but do not water until

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after the buds have formed, otherwise you will have principally stalks and leaves. But once the buds do show, water frequently in order to enrich the color, and dig in fertilizer around the roots several times during the flowering season, to produce fine, big blossoms.

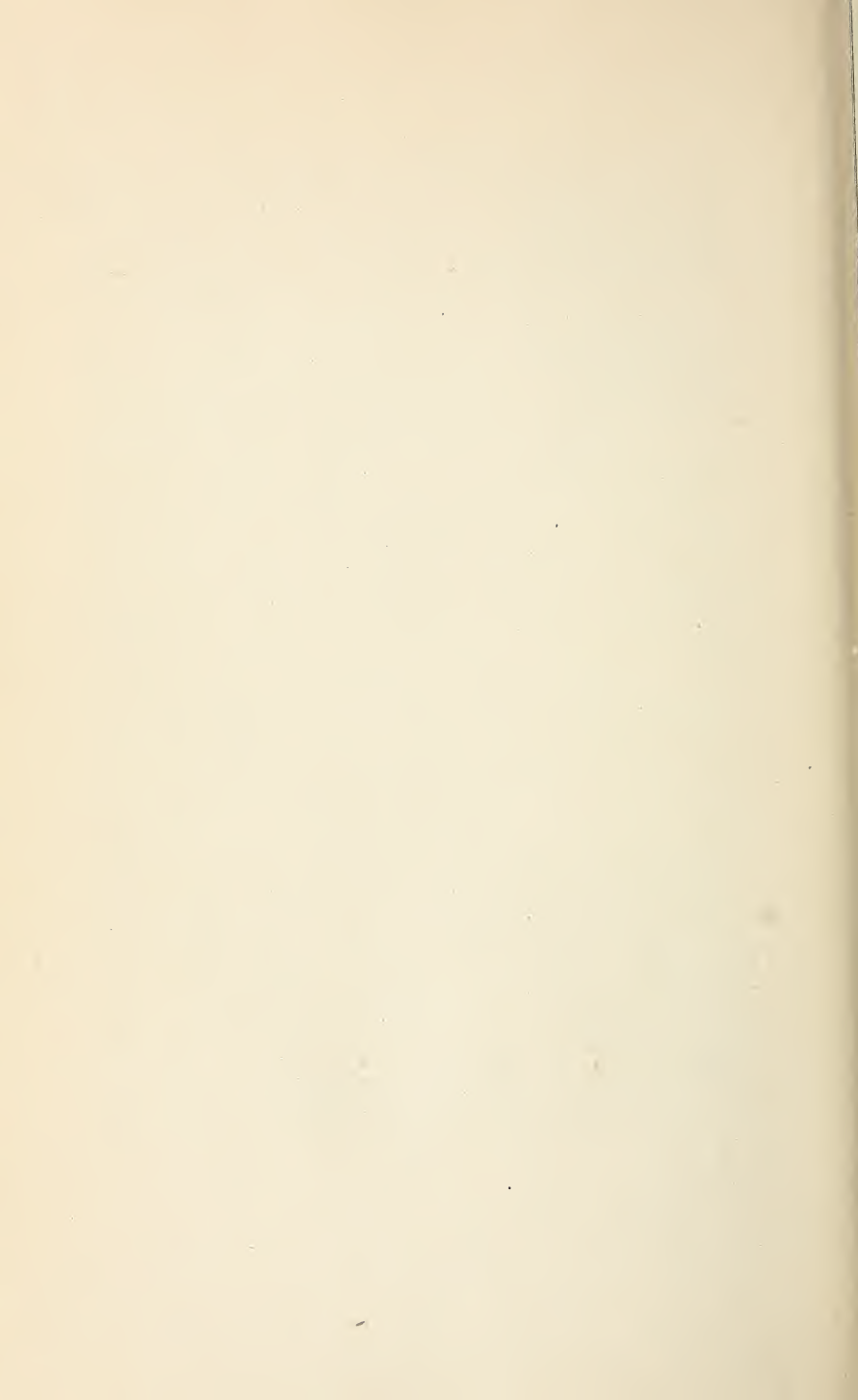
Tie each plant to a 5-ft. stake, to protect from the wind, but in driving be careful not to pierce—and ruin—your tuber. Nip off all the buds that are imperfect or weak, and cut your flowers with their attendant buds and foliage. They will look better, and no further disbudding of the plants will be necessary. And the more you cut, the better your dahlias will bloom!

Soon after frost has killed the leaves, carefully dig up the tubers with a spading fork. You will be surprised to find often half-a-dozen where you set but one! Allow them to dry in the air for a day or two, then put away in a cool, dark cellar, with a bag or paper thrown over them, and leave for the winter. In the spring when ready to plant again, cut each tuber so it will have a little bit of the heart of the clump on its end, as it is close to this that the new shoots start.

Growing dahlias from seed is a most fascinating pastime, for there is no telling what you may get! The child is rarely, if ever, like its mother,—and



TAKING CARE OF TABLE FERNS



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this is the only way that we get the new varieties. YOU might happen to grow one of the finest yet! The seed is started early indoors, and very easily grown. Certainly it is worth trying.

CHAPTER VII

That Queen--The Rose

Gather ye rosebuds while ye may,
Old Time is still a-flying,
And this same flower that smiles today
Tomorrow will be dying.

—*Herrick.*

EVERY one longs for roses, the most highly prized of all the flowers; and roses today can be grown almost anywhere.

Rose growers have finally succeeded in budding the tender tea rose on to the hardy briar and also on to the more recent Manetti stock, and in crossing the teas with the hybrid perpetuals,—developed from the old June favorites. The result is ideal roses, that are hardy and bloom all season, with the desired lovely coloring and fragrance.

Many of the so-called June roses also have been

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coaxed to bloom all season, while all those that I draw to your attention are among the loveliest and most easily grown. With even three or four, well taken care of, you should be able,—as far north as New York,—to cut a bud any time you wish from May to November.

These hybrid teas and hybrid perpetuals are the most satisfactory for growing in this climate. Field-grown stock, in dormant condition, is brought here from Holland every spring early in March, and good plants can be bought as low as fifteen or twenty cents apiece. The weather is usually fit for them to be set out by the 25th of March, and they will produce more and better roses than the costlier potted plants procurable later. The American grown roses, however, are really the best, as they are adapted to our soil and climatic conditions, and produce both more and better flowers.

Of these potted plants, though, just a word. The Richmond, a deep, rich red, and the single white Killarney, I have found exceptionally good, free bloomers; and with little winter covering they should, on account of a season's rest, be better the second year. The 6-inch or "bench plants," as they are termed, sell for only 25 cents each. These can be set out from April on all summer.

As soon as a rose bush comes into your hand,

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whether from a dealer or a friend, get it into the ground as quickly as possible. If its permanent home is not ready, dig a little trench and cover it entirely with the moist earth for a few days. But never, oh, never! allow the roots to dry out.

While a few specimen roses may be set out anywhere (as long as they do not cut up the lawn and so violate the landscape rule, "Preserve open lawn centers"), a number of rose bushes are usually preferred set together in a bed, from 3 to 4 ft. wide.

MAKING A ROSE BED

Have your rose bed with a south or east exposure if possible, as many roses so planted will not "winter kill," and others need but little protection. Dig a trench about $2\frac{1}{2}$ ft. deep, and put in the bottom a layer of cow manure, as this will be lasting. Over this put a layer of good top soil for the plants to rest on, so that they do not directly touch the fertilizer. Then hold your rose with your left hand while you straighten out the roots, and sprinkle enough fine soil to hold it in position while you set the next bush. Be sure that your budding point is 3 inches below the level of the ground,—and Baily says even 4! When all are in place, fill the trench half full of soil, and then

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nearly to the top with water. After this has sunk in, add the rest of your rich top soil, and pack down hard with your foot, so as to shut out the air from the roots, leaving the packed earth at least an inch below the surrounding surface to catch and hold the moisture.

Potted roses, however, should be sunk with as little disturbance to the roots as possible.

Then over the smoothly raked surface of the bed spread leaves, litter or grass clippings, to keep the sun from drying out the earth. Some gardeners for this purpose cover the bed with pansies, English daisies, and similar low flowers, though many like better to see nicely cultivated soil.

To have splendid roses, however, you must supply plenty of food and drink! When the buds start, dig in around the roots every two weeks, two tablespoonfuls of bonemeal, and wet thoroughly. Manure from the chicken house is especially good as the chickens are meat eaters, and it is, therefore, better adapted to the needs of the roses and easily absorbed by the rootlets. But use carefully—not more than a small trowelful at a time, and that well mixed with the soil. One of the very best foods is cheaply made as follows:

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ROSE FERTILIZER

10 lbs. sheep manure	Mix well. Give a level
5 lbs. bonemeal,	trowelful to roots of
1 lb. Scotch soot.	each rosebush every two
	weeks, after buds start,
	and wet down thoroughly.

Being hearty feeders, roses need a rich, light soil, and they do best in an open, sunny spot, away from the roots of trees and shrubs that would steal their food.

And while they do not thrive in low, damp ground, neither do they stand being set "high and dry." Too damp beds should be drained with a first layer of small stones or gravel.

Cultivate your roses every week or ten days, and keep the ground covered with grass clippings unless it is protected from the sun by the shade of other plants. Cut off close to the parent stem any wild shoots or "suckers,"—generally recognizable by their briary stems,—as they will cause the budded part to die.

FALL PROTECTION

Late in the fall mound up the earth well around the roots of all your roses, and give them a good

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covering of coarse manure or leaves. The more tender kinds can be laid over and protected with litter or boughs.

SPRING PRUNING

Then early in the spring, before the first of April, cut back the hardy roses, keeping only the strong canes, which, however, should be shortened to about 10 inches. The middle of April prune the more tender varieties. But remove from both all shoots growing in toward the center, and cut all weak plants back to the third or fourth eye, to promote stronger growth and larger flowers. Climbing roses need only the weak branches and tips removed.

Date new climbing canes with wired wooden tags each spring, and cut out all over three years old. This renews the stock, restrains ambitious climbing, and produces better flowers.

SPRAYING

About this time a spraying first of Bordeaux mixture to prevent disease, and a little later a spraying of whale-oil soapsuds as warning to the great army of bugs, slugs, etc., will give your roses

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a good start toward a successful season of bloom.

Watch for that robber, the rose bug! Talk about salt on a bird's tail! The surest way to end His Majesty is to take a stick and knock him into a cup of kerosene. Slow process? Yes, but sure. The leaf-roller, too, is most effectively disposed of by physical force,—pressure of thumb and forefinger. Clear, cold water, twice a day through a hose, comes with force enough to wash off many of the rose's foes; but if they get a start, fall back on strong soapsuds, pulverized tobacco, or some other popular remedy.

The Garden Club of Philadelphia is said to recommend the following:

EFFECTIVE SPRAY FOR ROSE BUGS

3 pts. sweet milk.

3 pts. kerosene.

1 qt. water.

Shake well in a jug, then put one-half pint of the fluid to one gallon of water. Stir well and both spray the bushes thoroughly and wet the ground around the roots. Repeat every ten days from May 1st to June 15th, by which time the pests seem to get discouraged and give up the fight!

And the reward for all this care and attention?

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“A devoted cottager,” says Neltje Blanchan, “may easily have more beautiful roses than the indifferent millionaire.”

The following lists comprise a few of the best of the different classes mentioned. I wish you success in your choice.

ROSES

A FEW OF THE BEST OF EACH KIND

Teas. (Tenderest of roses, needing winter protection. Noted for delicate shades and fragrance.)

Maman Cochet, free bloomer, hardiest of the teas; rose-pink.

Marie Van Houtte, also a free bloomer and quite hardy; canary yellow.

Souvenir de Catherine Guillot, a rose of excellence; copper-carmine.

White Maman Cochet, a strong grower, like the pink; white.

Hybrid Teas. (Best for the garden, as they combine the best qualities of the teas and the hybrid perpetuals,—color, hardiness, and steady bloom.)

Caroline Testout, one of the most popular, slightly fragrant; rose pink.

Etoile de France, continuous bloomer and fragrant; crimson.

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- Gruss an Teplitz, the best dark rose, and fragrant; velvety crimson.
- Kaiserin Augusta Victoria, blooms of lovely shape, on long stems; pearly white.
- Killarney, very popular and one of the best of its color; lovely pink.
- Killarney, a "sport," same as the pink; white.
- La France, especially good form, fragrant; bluish-pink.
- Mrs. Aaron Ward, a vigorous plant, of compact growth, very popular; pinkish-yellow.
- Richmond, a steady bloomer all summer, with a beautiful bud; rich deep red.
- Hybrid Perpetuals.** (Commonly known as June roses, and hardy. The following will bloom most of the summer.)
- Anna de Diesbach (*Gloire de Paris*), splendid in the garden and fragrant; rich carmine.
- American Beauty, successful in most localities; rose-carmine.
- Frau Karl Druschki, very large and fragrant; snowy white.
- General Jacqueminot, a favorite that does well everywhere; crimson.
- Louis van Houtte, very desirable and fragrant; deep red.
- Mrs. John Laing, late blooming and hardy, fragrant; lovely pink.
- Mrs. R. G. Sharman-Crawford, a splendid bloomer; rose-pink.
- Ulrich Brunner, large, fragrant, with well-formed flowers; cherry red.
- Moss.** (Loved for the beautiful fragrant buds with their mossy covering.)
- Blanche Moreau, flowers in clusters; white.

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Countess de Murinais, one of the best; white.

Crested Moss, finely crested; rose pink.

Henry Martin, very vigorous; crimson.

Luxembourg, exceptionally good; crimson.

Climbing and Rambler. (Used over walls, fences, pillars, arbors and trellises.)

Baby ramblers, 18 in. to 24 in. high, are good for hedges, beds, or carpeting, and can be bought in white, pink, salmon pink, red and yellow.

Climbing American Beauty, well worth growing; rose-pink.

Dorothy Perkins, a profuse bloomer and rapid grower; shell-pink.

Crimson Rambler, first of the ramblers, but disliked by many gardeners today; crimson.

Dr. Van Fleet, one of the best, resisting mildew and insects,—a gem; flesh-pink.

Excelsa, an improvement on the formerly popular crimson Rambler; crimson.

Hiawatha, most brilliant of all, between 40 and 50 roses to the spray; carmine.

Tausendschoen, roses 3 in. across, graceful in form, and 10 or 15 to the truss; pink.

White Dorothy, like satisfactory Dorothy Perkins, except for color; white.

Yellow Rambler, new variety called "Aviator Bleriot," the first hardy yellow; yellow.

Briar, Austrian and Hybrids. (Loved by our grandmothers, and some known here in this country as far back as 1596. They must not be crowded.)

Austrian Copper, beautiful single reddish-copper and one of the oldest; copper.

Austrian Yellow, lovely single flowers (introduced late in 1500); deep yellow.

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English Sweet Briar, or Eglantine, loved for its fragrance, also single; pink.

Anne of Gerstein, very graceful; dark crimson.

Brenda, very dainty; peach.

Refulgence, fragrant foliage,—deepens in color on developing; scarlet to crimson.

AMERICAN GROWN ROSES

The American grown rose, however, I find is considered by many people to be by far the best. While its slender brown stems are not as attractive to the ignorant gardener as the thick, green of the imported, it is much more adapted to our soil and climatic conditions. It is cheaper, too, and splendid varieties, in 2½-in. and 3-in. pots, can be bought as low as \$5.00 or \$6.00 a hundred from expert growers, by the person willing to start a rose garden and then wait a year for really fine results.

In lots of fifteen, however, many of these fine varieties of one-year-old plants can be bought for \$1.00, with the growers' guarantee that "they will bloom the first and each succeeding year, from early spring until severe frost." The plants are small, of course, but who could ask for more at that price!

The (probably) best informed man in the Eastern United States recommends the following list of Teas and Hybrid Teas,—and it has been adopted

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by a number of firms as suggestions for planting. Don't go looking for these plants at the 5- and 10-cent stores, for they never carry such specialties. They are cheap, though, and well known throughout this section, but they should be procured from people WHO MAKE A BUSINESS OF GROWING ROSES!

A SPECIALIST'S LIST OF TEAS AND HYBRID TEAS

White

Grossherzogin Alexandra
Kaiserin Augusta Victoria
Marie Guillot
White Bougere

Yellow

Blumenschmidt
Etoile de Lyon
Lady Hillingdon
Sunburst

Light Pink

Col. R. S. Williamson
Helen Good
Mrs. Foley Hobbs
Souvenir du President Carnot
Wm. R. Smith
Yvonne Vacherot

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Dark Pink

Aurora
F. R. Patger
Jonkheer J. L. Mock
Lady Alice Stanley
Maman Cochet
Mme. Jules Grolez
Mrs. George Shawyer
Radiance

Red

Crimson Queen
Etoile de France
Mme. Eugene Marlitt
General McArthur
Helen Gould
Laurent Carle
Rhea Reid

CHAPTER VIII

Vines, Tender and Hardy

They shall sit every man under his vine and under his figtree.

—*Micah* iv, 4.

EVERYBODY likes a pretty vine, and there is sure to be some place where you will want to plant at least one. Where? Why, at one corner of the porch where you like to play; round the pillar at the front door, where you read, or by the window where you sit to sew; in the backyard to cover the clothespoles, hide the chicken fence, or screen some old, ugly building.

The common annual vines you probably know pretty well,—the climbing nasturtium, morning glory, moonflower, cypress vine, scarlet runner, hyacinth bean, wild cucumber, gourds and hops. They are treated very much alike, grow with little

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care if they only have something to climb on, and spread rapidly.

The hardy vines are not so easily disposed of. For instance, the clematis (with accent on the *clem*,) numbers throughout the world about one hundred and fifty species,—generally climbers,—in white, blue, purple, red and yellow, and ranges from the 2-ft. shrubby kind to the 25-ft. vine. While our common mountain clematis (*Montana grandiflora*) flowers as early as April, the Jackmani in mid-summer, and the Paniculata often as late as September, the Henryi is seen even in November. And while some can be grown from seed, the rest have to be propagated by cutting or grafting.

WARNING

Right here let me again urge you to make sure of the particular kind of flower, plant or vine that you get, so that you will know how to treat it, and not count on flowers in June from a variety that blossoms in September, or expect purple posies from the white sort. The gentleman printing this book will not let me take space enough to go into details about every thing I mention (he says paper

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is too dear!) so the only way out of the difficulty is for me to make the lists include all the colors, all the heights, all the months of bloom, and then impress on YOU the necessity of ascertaining the particular kind you want to grow.

BOOKS THAT WILL HELP

As the people you would ask might make a mistake about these things, get in the habit of looking them up for yourself. Go to the Public Library and just see the fascinating books that have been written about plants and flowers,—many for children and in the form of stories. For real facts, though, given in few words and easily found from a complete index in the back, ask for “The American Flower Garden,” by Neltje Blanchan, or “The Garden Month by Month,” by Mabel Cabot Sedgwick. This latter gives a little description of all the *hardy* plants and flowers, and is filled with beautiful pictures. And some of the big seed dealers and nurserymen get out fine catalogues that are really garden books in themselves, chock full of information accompanied by colored illustrations, which can be had for the asking!

VINES THAT MUST BE RENEWED EVERY YEAR

THE ANNUAL CLIMBERS

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Balloon Vine (<i>Cardiospermum halicacabum</i>)	White Seeds in tiny balloons	10 to 15 ft.		May 1st 6 in. apart	Rapid growing	Sun	
Balsam Apple (<i>Momordica</i>)	Has curious fruit	10 ft.		May 6 in. apart	Trellis or rock-work	Sun	
Cardinal Climber (new) (<i>Ipomoea quamoclit hybrid</i>)	Cardinal	15 to 20 ft.	March	May	Rapid growing	Sun	June
Cypress Vine (<i>Ipomoea quamoclit</i>)	Red White	10 to 20 ft.	March April	May	Dense mass	Sun	June
Fire Bean, see Scarlet Runner							
Gourds, Ornamental	Odd shapes	15 to 30 ft.		May	Over arbor or summer- house	Sun	
Hop, Japanese (annual) (<i>Humulus</i>)	Green	20 to 30 ft.		May	Rapid growing Arbors and screens	Sun	
Hyacinth Bean (<i>Dolichos</i>)	Purple White	10 to 20 ft.		May	Arbors and trellises	Sun	July
Moon Flower (<i>Ipomoea bona-nox</i>)	White	15 to 30 ft.	Feb. or March	May	Rapid growing	Sun	July to frost

NAME	COLOR	HEIGHT	SOW INDOORS	SOW OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Morning Glory (<i>Ipomœa purpurea</i>)	White Pink Purple Blue	10 to 20 ft.		May	Rapid growing	Sun	July, Aug.
Nasturtium, Tall (<i>Tropæolum majus</i>)	Yellows to reds	6 to 12 ft.		May	Screens and trellises	Sun	July to Oct.
Scarlet Runner (<i>Phaseolus multiflorus</i>)	Scarlet	10 to 12 ft.		April May	Screens	Sun	July to frost
Sweet Pea (<i>Lathyrus odoratus</i>)	All colors	3 to 6 ft.		March	Train on brush or chicken- wire	Sun	July to Sept.
Wild Cucumber (<i>Echinocystis</i>)	White	12 to 15 ft.		May 1st	Screens or coverings	Sun	July, Aug.

VINES THAT LIVE ON FROM YEAR TO YEAR

THE HARDY CLIMBERS

NOTE.—Different varieties of same kind will bloom at different times.

NAME	COLOR	HEIGHT	START OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Akabia (<i>Akabia quinata</i>)	Violet-brown	20 ft.	In the fall	Light screen	Sun or shade	May, June
Bittersweet (<i>Celastrus scandens</i>)	Yellow	15 to 30 ft.	Plant roots in early spring	Rapid growth	Sun	Bright seeds for winter
Cinnamon Vine (<i>Dioscorea</i>)	White	5 to 25 ft.	Start in early spring	Rapid growth	Stands part shade	July, Aug.
Clematis (numerous varieties)	White Red Purple	Varies in height	Procure roots	Wall covering like Ivy	Anywhere	Different kinds at different times. June to frost
Creeping Spindle (<i>Euonymus radicans</i>)	Evergreen trailer	Grows to 30 ft.	May	Dense shade		
Dutchman's Pipe (<i>Aristolochia</i>)	Brownish-yellow	15 ft.	Procure plants	Trellis Fence Walls		June to Aug.
Honeysuckle, Japanese (<i>Lonicera Halliana</i>)	Yellow-white	15 to 20 ft.	Procure roots	Trellis	Sun	
Hop, Perennial (<i>Humulus lupulus</i>)	Green					

NAME	COLOR	HEIGHT	START OUTDOORS	GOOD FOR	PLACE	BLOOMING SEASON
Ivy, Boston or Japan (<i>Ampelopsis</i> or <i>Veitchii</i>)		Spreads rapidly	Procure plants	Covers walls or trees	Sun or shade	
Ivy, English (<i>Hedera helix</i>)	Evergreen		Procure plants	Wall covering	Shade- loving	
Kudzu Vine, Japanese (<i>Pueraria Thunbergiana</i>)	Rosy-purple	10 ft. First year from seed	Early spring	Thick screen	Sun	August
Matrimony Vine (<i>Lycium barbarum</i>)	Purplish	Shrubby	Procure roots	Ornament and use	Sun	Late summer
Pea, Everlasting (<i>Lathyrus latifolius</i>)	Red White	6 to 8 ft.	Plant tuber or seed	Trellis or rough places	Sun	August

CHAPTER IX

Shrubs We Love to See

“Every yard should be a picture. The observer should catch the entire effect and purpose, without analyzing its parts.”

—*Bailey.*

OF course you want to know something about shrubs. For what? Possibly just to make a tiny hedge around your garden, or a taller one to shut out the view of some neighbor's untidy backyard. More likely for a lovely specimen plant for your own grounds. In that case, don't, oh, don't! set it out in the middle of the lawn! And two or three thus dotted around (in “spotty planting,” so called) are the acme of bad taste, and violate the fundamental principles of landscape gardening.

Our grandmothers all loved the tall syringa, honeysuckle, snowball, strawberry shrub, weigela,



CLEANING UP AROUND THE SHRUBS

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rose of Sharon and lilac, while they hedged both their yards and gardens with box, privet and evergreens. Today we use a good deal of the Japanese barberry, while Uncle Sam's recent free distribution has widely introduced that pretty little annual bush-like plant—the kochia, or summer cypress, good for low hedges.

But there is that publisher cutting off my space again! So I can just add a word about the lovely new summer lilac or buddleia. A tiny plant of this, costing only 25 cents, grows into a nice four-foot bush the first summer, and blooms until late in the season.

Most of these shrubs can be easily grown from cuttings, however, so just ask your friends to remember you when they do their pruning.

SHRUBS

NAME	COLOR	HEIGHT	GROWN FROM	BLOOMING SEASON
Althea, see Rose of Sharon				
Azalea	No blues	1 to 6 ft.		Spring, early summer
Barberry, Japan (<i>Berberis Thunbergii</i>)	Red berries	4 ft.	Seed	Red berries all winter
Boxwood (<i>Buxus sempervirens</i>)	Green	4 to 20 ft.		
Bridal Wreath, see Spirea (<i>Thunbergii</i>)				
Buddleia	Lavender	3 to 6 ft.	Cuttings	July to frost
Currant, Flowering (<i>Ribes aureum</i>)	Yellow	4 ft.		May
Deutzia	White, Pink	3 to 12 ft.	Cuttings	May, June
Forsythia	Yellow	6 to 10 ft.	Cuttings or seed	Earliest spring
Golden Bell, see Forsythia				
Honeysuckle (numerous varieties) (<i>Lonicera</i>)	White, Yellow Pink, Red	6 to 12 ft.	Cuttings or seed	March to June
Hydrangea (<i>Paniculata grandiflora</i>)	White	8 to 12 ft. generally	Cuttings	July to November
Japanese Quince (<i>Cydonia japonica</i>)	Scarlet	8 ft.		May

NAME	COLOR	HEIGHT	GROWN FROM	BLOOMING SEASON
Kochia (small annual bush)				
Lilac (<i>Syringa vulgaris</i>)	Lavender, White	3 ft. 5 to 20 ft.	Seed	Bush reddens in fall May, June
Mock Orange (<i>Philadelphus coronarius</i>)	White	10 ft.		May, June
Privet (<i>Ligustrum ovalifolium</i>)	Green	15 ft. unless sheared	Cuttings	
Rose of Sharon. (<i>Hibiscus Syriacus</i>)	White, Pink to Purple	Up to 18 ft.		August to October
Snowball, Japanese (<i>Viburnum tomentosum</i>)	White	8 to 10 ft.	Cuttings	May, June
Spirea (<i>Thunbergii</i>)	White	2 to 4 ft.		May
Spirea (numerous other varieties)	White, Pink, Rose	4 to 6 ft.		Different months from May to September
Strawberry Shrub	Chocolate-colored	6 to 10 ft.	By division	May
Syringa, see Mock Orange				
Viburnum, see Snowball				
Weigela (<i>Diervilla florida</i>)	White, Pink, Red	6 ft.		June

CHAPTER X

Vegetable Growing for the Home Table

The life of the husbandman,—a life fed by the bounty of earth, and sweetened by the airs of heaven.

—*Jerrold.*

It is predicted that this year,—1917,— will be the greatest year for gardening that the country ever has known!

The high cost of living first stimulated interest. Then after war was declared, the slogan, “Food as important as men or munitions,” stirred young and old. Garden clubs sprang up everywhere, and in free lectures people were instructed how to prepare, plant and cultivate whatever ground they could get, from small backyards to vacant lots.

In our neighborhood last year a man with a plot of ground less than half the size of a tennis court,

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grew \$50.00 worth of vegetables,—enough to supply his whole family! He got his planting down to a science, however,—what he called “intensive gardening,” so that every foot of the soil was kept busy the whole summer. He fertilized but once, too, at the beginning of the season, when he had a quantity of manure thoroughly worked in. Then between slow growing crops, planted in rows as closely as possible, he planted the quick-growing things, which would be out of the way before their space was needed.

Incidentally he worked out a chart (which he afterwards put on the market), ruled one way for the months, and the other for the number of feet, with name cards for the vegetables that could be fitted in so as to visualize—and make a record of the entire garden the entire season. Such a plan means a great saving of both time and space.

Garden soil must be warm, light and rich. It must be well spaded to begin with, well fertilized, well raked over, and kept well cultivated. Vegetables require plenty of moisture, and during dry weather especially must be thoroughly watered. As I have said before, simply wetting the surface of the ground is almost useless, and often, by causing the ground then to cake over the top as it dries, worse than none at all, if the soil were cultivated

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instead. Pests must be watched for on all the crops, and treated according to the special needs of each variety when whale-oil, soapsuds, tobacco dust or insect powder seem ineffective. Then with weeding, and reasonable care, you can safely expect to keep your table supplied with that greatest of all luxuries,—your own green vegetables, fresh from the soil.

VEGETABLE GUIDE

Beans. Bush

Plant from early May on, every two weeks, for succession of crops. Drop beans 3 in. apart, in 2-in. deep drills, allowing 2 ft. between rows. Hoe often, drawing the earth up towards the roots. Be sure that the ground is warm and dry before planting, however, or the beans will rot.

Beans. Pole

Set stakes 5 to 8 feet high, in rows 3 ft. apart each way; or plant in drills to grow on a trellis. Put four or five beans around each stake, and when well started, thin out the poorest, leaving but three at each pole. A cheap trellis is made by stretching two wires (one near the ground and the other six feet above), and connecting them with stout twine for the vines to run on.

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Beans. Lima

As these are more tender, they should be planted a couple of weeks later than other beans. They need especially good, rich soil, with plenty of humus or the fine soft earth that is full of decayed vegetable matter. Allow each plant 6 in. in the row, and make rows 2 ft. apart. Give a good dose of fertilizer about the time they start, and keep well cultivated. Beans are among the easiest of all vegetables to grow, and as they can be dried for winter use, are especially valuable.

Beets.

Any well-tilled, good garden soil will produce nice beets. Make drills or rows 18 in. apart, and plant the seed about 1 in. deep if earth is light and sandy, but only half an inch if heavy and sticky, as early as the ground can be put in condition. Cultivate often, and thin out the plants to about 3 in. apart. Sow at intervals of two or three weeks for successive crops up to the middle of July. An extra early lot can be had by starting seed in the house in boxes in February or March, and then setting the young plants out at time of first outdoor planting.

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Cabbage.

For early crop, start seed indoors in February or March and transplant, when four leaves appear, to another seed box until you can plant in open ground in May. For later crop sow seeds in rows in open ground during April and May, and transplant during July and August, to 20 in. apart, in rows 3 ft. apart. Cultivate often, to keep moisture in the soil. Prepare to fight pests, early and late. After the seventy or more remedies suggested by one authority, for maggots alone, the amateur might feel like abandoning cabbage, but at the price this moment of \$160.00 a ton, wholesale, in New York City, a person with even a handkerchief bed feels like attempting this luxury.

Carrots.

Hardy and easily grown, they can be sown in rows that are 12 in. apart, and thinned out to 3 in. apart in the row. They can be started as early as April, and sown for succession up to the middle of July. Cultivate often.

Cauliflower.

Treat like cabbage, except that you must start as early as possible, to get ahead of the hot weather, and give the plants plenty of water. When the

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heads are well-formed and firm, bring the outside leaves up and tie together, to shut out the sun and keep the heads white and tender. And don't forget,—plenty of water!

Celery.

Seed for an early crop can be started in February, in a shallow box in a sunny window, then transplanted to another box, pinching off the tall leaves. In May or June dig a shallow trench in good rich soil, and set plants, 6 in. apart at bottom. Fill up the trench as the plants grow, to within a few inches of the tip leaves, in order to bleach out white. Set up boards against the rows to exclude light, or cover in the easiest way. For winter keeping, take up plants with roots and place on damp soil in boxes in a cool, dark cellar.

Chicory Witloof—or French Endive.

Often seventy-five cents a pound in the market, but easily grown by the amateur. Seed is sold under name of Witloof chicory, and should be sown in open ground, during May or June, in rows a foot apart. Allow to grow until November, cultivating and keeping moist. Then dig up roots,—long, thick tubers,—trim down tops to within 1½ in., and cut off bottom of root so that whole plant will be less

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than a foot long. Place upright in separate pots or a long box in a cool cellar, fill up to within a couple of inches from tops of roots, and cover each top with an inverted pot or box, to exclude the light. Make thoroughly damp and never allow to dry out. In about four weeks the new tops can be cut for the table, and by covering and keeping wet, often three or four successive crops can be secured. A friend of mine keeps two families supplied most of the winter, at little cost or trouble. A delicious salad.

Corn. Sweet

Plant early and then every two weeks for succession, in good rich soil, dropping the seed 10 in. apart in rows 3 ft. apart (for hand cultivation). Start early in May, and hoe often. Golden Bantam, Evergreen and Country Gentleman are especial favorites.

Cucumbers.

Plant as soon as weather is settled, and warm, (early in May around New York,) in hills at least 4 ft. each way. Give good rich soil, and keep moist. Leave only two or three plants to a hill, and do not allow cucumbers to ripen on vines. Plant for succession. The Japanese climbing va-

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riety runs up a pole or trellis, is free from blight, and produces especially fine, big cucumbers.

Endive. See Chicory

Lettuce

Can be started in boxes indoors, in March. Make sowing in the open ground from April to November, if you protect the first and last. Put in nice, rich soil, in warm spot, and transplant when big enough to handle, into rows, setting 5 in. apart. Don't forget to weed!

Melons.

Muskmelons are most easily grown, but both the weather and the ground must be warm. Give them a light, rich soil,—which, if you haven't, you must make by mixing the heavy soil with old manure. Make hills 6 ft. apart, putting a few shovelfuls of fertilizer in each, and planting about a dozen seeds to a hill. After well started, and when most of the pests have had their fill and disappeared, thin out so as to leave only four or five of the strongest vines to each hill. Spray repeatedly with some good mixture.

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Watermelons.

These take up so much room that not many people try to grow them. The culture, however, is about the same as for muskmelons, only make hills 8 to 10 ft. apart.

Onions.

Plant seed in fine, rich, well-prepared soil, as early as possible, in shallow drills, 12 in. apart. Firm down with the back of your spade, and when well started, thin out to 3 in. apart in the rows. Hoe often without covering the bulbs, and water freely.

Parsley.

This requires a rich, mellow soil. Sow early in April, in rows 1 ft. apart, after soaking the seed a few hours in warm water to make it come up more quickly. Plant seed $\frac{1}{2}$ in. deep, and thin out the little plants to 5 in. apart in the drills.

Parsnips.

Sow as early as you can in well-prepared ground, $\frac{1}{2}$ in. deep, in rows 1 ft. apart. When well started, thin out to 6 in. apart in the row. Parsnips are improved by being left in the ground over winter, for spring use.



ALL READY TO HOE

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Peas.

The early smooth varieties are the first seeds to put into the garden, though the wrinkled are a better quality. Dig furrows 2 in. deep in earliest spring, but when weather is warm, 4 in. deep; and 3 ft. apart. Select the kind of peas desired, scatter in the rows, and cover with a hoe. They need good soil, plenty of cultivation, and the tall sorts should be given brush for support. Sow several times for succession. Early crop may be hurried by first soaking the seed.

Potatoes.

Selling as they are today (February, 1917), for 10 cents a pound, one is strongly tempted to turn the flower garden into a potato patch! The early varieties need especially rich soil. Drop a couple of pieces about every foot, in 3 to 4 in. deep drills that are 3 ft. apart. Cultivate often, and fight the vast army of potato bugs with Paris green, or Bordeaux mixture.

Radishes.

A light, rich, sandy soil will grow the early kinds in from four to six weeks. Sow in drills a foot apart (scatteringly, so as not to require thinning,) every two weeks, keep free from weeds, and water in dry weather. Start outdoors in early April.

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Spinach.

Sow in early spring in drills made $\frac{3}{4}$ in. deep, and 1 ft. apart, as early as the ground can be worked. Thereafter, every two weeks for succession. Good rich soil is necessary.

Squash.

Be sure of rich, warm soil. Plant in well-fertilized hills, like melons or cucumbers, at least 4 or 5 ft. apart. Sow eight to ten seeds to a hill, and after the insects have had their feast, keep only three or four of the vines that are strongest. To repress the ardor of the squash vine borer, scatter a handful of tobacco dust around each plant.

Tomatoes.

Most easily started by getting the young plants grown under glass, and setting out in the open ground in May. Put 4 ft. apart, in rich, mellow soil, and water freely. Seed can be started, however, in the house, in March, then the seedlings transplanted into old berry-boxes or flowerpots, and allowed to grow slowly until about May 15th (around New York), when they can be set in the open ground. Plants are attractive when tied to stakes or a trellis, and produce earlier, better and

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higher grade tomatoes, without the musty taste of those that are allowed to sprawl over the ground.

Turnips.

Sow early in the open ground, in drills 15 in. apart, and thin out to 6 in. apart in the row. Up to June, sow every two weeks for succession.

CHAPTER XI

Your Garden's Friends and Foes

A cow is a very good animal in the field; but we turn her out of a garden.

—*Johnson.*

YOUR garden's friends and foes,—have you ever thought about them as such? You go to a lot of trouble to raise fine flowers and vegetables, and then, if you are not on the lookout, before you know it something has happened! Your rose leaves are discovered full of holes, and your potato vines almost destroyed; your tomato plants are being eaten up by the big, ugly "tomato worm," while your choicest flowers are dying from the inroads of green or brown insects so tiny that at first you do not notice them; and strong plants of all kinds are found cut off close to the ground. What further proof do you need that your beloved garden has its enemies?

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Here indeed "Eternal vigilance is the price of liberty." If you would be free and escape such ravages, you can not wait until your foes are full-fledged and hard at work, because usually considerable damage has then been done. Instead, you should learn at the time you begin gardening all about the many difficulties you have to contend with, including the various things that prey upon your plants.

When you plant seed, for instance, and it fails to come up, you are apt to blame either the dealer or the weather man. Just as likely as not, though, some insect had attacked the seed before it was planted, or else the grubs got busy and enjoyed a full meal. These pests, with their various relations, are the most difficult of all to control, but poisoned bait (freshly cut clover that has been sprayed with Paris green,) scattered on the ground where cut worms come out at night to feed, will destroy many of them. When your plants have begun to grow, however, and you find them being nipped off close to the ground, dig close to the stem and you will probably bring to light a cut worm curled up in his favorite position, and you can end him then and there from doing further damage. The wire worm, on the contrary, works entirely below the surface, and when you spade up a long, slender,

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jointed, brownish, wriggling worm, quite hard, you will know that he is one of the kind to be immediately destroyed.

These grubs and worms are the different kind of caterpillars,—the children,—of several varieties of moths that fly by night, the shining brown beetle that bumps against the ceiling on a summer evening, and the funny “snap-bug.” Crawling or flying, young or old, parent or child, they generally do their worst after dark. Equal parts of soot and lime, well mixed, scattered in a four-inch ring around each stem on the top of the soil, will keep away the things that crawl, while white hellebore (a poison that must not get on little fingers,) dusted on the plants will keep off most of the things that fly. Rose bugs, however, seem to come in a class by themselves! Apparently, they don’t mind any of the well-known deterrents and about the only way to really get rid of them is to “go bugging,” which means knocking them off into a cup of kerosene or a box where they can be killed.

Caterpillars, naked or hairy, eat vegetation, and are consequently most unwelcome visitors. The sowbug or pill-bug, while disagreeable to look at, is not quite so injurious as often thought, but the mite called the red spider can do a lot of damage. Most of the beetles seriously injure the vege-

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tables. The saw-flies with their offspring, and certain kinds of ants (especially the "soldier ants") are as troublesome as the caterpillars, while the next family group, the grasshoppers, locusts, katydids and crickets are all great feeders,—the grasshoppers and locusts often becoming an actual plague and destroying whole crops. To get rid of the caterpillars and beetles various means are employed, such as spraying with Paris green, Bordeaux mixture, kerosene emulsion, or even strong suds made with whale-oil soap; and Paris green is also applied dry. A pretty good poison is bran-and-arsenic mixture, but the different liquids and powders make a story by themselves, and require great care in using; so you better consult some successful gardener-friend about the best one (and the way to use it,) for your particular foe.

Of the sucking insects,—those that draw out the juice or sap of the plant,—the aphides or "plant lice" do inestimable damage to all kinds of plants and flowers, while the chinch bug and garden tree-hopper seem to prefer to attack vegetables. The most familiar aphides are green, and they have tiny, soft, pear-shaped bodies, with long legs and "feelers." They usually live on the under side of the leaves and along the stems, and one good way to get rid of them is to spray with kerosene emul-

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sion or tobacco water, or else sprinkle with clear water and then dust with tobacco dust.

Not all of the live things that you find about your plants and flowers are injurious, however, and you must learn to recognize those which are beneficial. The ladybug, although a beetle, lives on aphides, and so is your helper in destroying them. Several beetles, like the fiery ground beetle, subsist on cutworms, and the soldier bug dines on the destructive offspring of beetles and moths. The daddy-long-legs and the spider are also friends to your garden, together with many wasps.

As for the bees, many, many plants are dependent on them for fertilization, as the insects in their search for honey go clear down into the flowers and carry with them the necessary pollen from one blossom to another. Two stories I have heard illustrate this point. In Australia many years ago people tried to introduce clover, but they could not make it grow until some one thought of importing the bees also. The native insects did not have a proboscis long enough to reach to the bottom of the flower, so that the pollen had never been properly placed. Then, not very long ago, a farmer living near a railroad had his crop of tomatoes ruined because the railroad used soft coal, the soot of which—settling on the tomato blossoms—kept away the

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bees so that the flowers were not fertilized! He sued the company and recovered damages. So you see the bee is really necessary for the success of your garden.

Toads eat many of your small enemies, and should be encouraged by providing an upturned box or some cool, shady place in your garden where they can rest during the day,—for much of this “dog-eat-dog” business, sometimes termed “the law of the jungle,” goes on at night.

Birds, however, wage open warfare, in broad daylight, and wherever the soil has been cultivated, in the fields or among the plants and flowers, the feathered tribe seek the very things you want destroyed. A well-known nurseryman, when the English sparrow was first introduced in this country, noticed many of the birds among his choice roses, and to satisfy himself that they were not injuring the plants, killed one of the fattest. An investigation of his little stomach showed it to be chock-full of rose slugs and aphides,—the rose’s worst enemies!

The robins, of the thrush family, live almost entirely on worms and insects, and the bluebirds, orioles, tanagers and starlings, with the various songsters, should all be given a most cordial invitation to pay you a long visit. And this invitation?

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A place to live, if only a box nailed up on a tree, with an opening small enough to keep out intruders. A bird house more attractive in your own eyes is easily made by any boy or girl handy with a knife or a jig-saw, and really artistic houses, suited to particular birds, are described in various books and magazines, made from pieces of bark, sections of limb, or fir cones. A little study of the kind of nest each bird makes for itself may enable you to select your guests. The swallow, the cat-bird, the blackbird, the finch,—all should be welcomed: and suet tied on the branches, bread crumbs scattered around your door, grain sprinkled where you especially want them to come, will encourage the winter birds to pay you a daily visit.

A bird bath is sure to prove an irresistible attraction. I have seen my back yard full of starlings and sparrows, pushing and crowding each other to get into a little pool where the snow has melted around a clothes-pole! A shallow pan, with an inch or two of water, will often draw so many birds that it has to be filled again and again during the day. Birds suffer, too, in winter from thirst, and greatly appreciate a drinking place. A bird fountain, with its running water, is a delight for the rich; but a pretty enamelled tray, white or gray, and round, square or oval, can be bought

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in a department store for less than a dollar, and it can be sunk in the top of a vine-covered rockery or securely placed on a mossy stump, where it will bring both joy and birds to the smallest gardener.

So cheer up. Though your foes, as described, seem a formidable army, remember all the friends that will rally to your aid, and with reasonable watchfulness and care, you and your garden will come out victorious.

CHAPTER XII

A Morning Glory Playhouse

Small service is true service while it lasts.

Of humblest friends, bright creature! scorn not
one;

The daisy, by the shadow that it casts,

Protects the lingering dewdrop from the sun.

—*Wordsworth.*

You children love a playhouse, don't you? Yet it isn't always easy to get one. A morning glory bower, however, is a perfect delight, and very easy to make. Persuade some big brother to drive a few long stakes in the ground so as to mark out either a square or a circle, as you prefer. Then ask him to fasten some heavy cord from the bottom of one stake to the top of the next nearest, and then across the top, leaving only a place at one side for an entrance. Soak your morning glory seeds over night, so that they will germinate more quickly, and then plant them along the line of the circle or

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square marked on the ground. As soon as they begin to grow, train the vines on the cords, and if necessary tie in a few more strings near the bottom, to help the baby climbers get started.

The morning glory grows very rapidly, and is justly popular because of its lovely blossoms which come in the most beautiful shades. And as the flowers always turn away from the sun, you will find them soon completely lining the inside of your playhouse.

The most common kind (*Convolvulus major*), grows from 15 to 20 ft., and will do well in almost any location. It costs only five cents per packet, and will flower all summer. Who could ask more! The rarer kinds are known as the Japanese Morning Glory, which grows from 30 to 50 ft., and has blossoms measuring from 3 to 4 inches across. These range from snowy white to darkest purple through the pinks, both plain and with all kinds of variations. They grow and spread very fast, and love a sunny location.

If you prefer, you can use the trunk of some tree for the center pole of your playhouse. (Possibly some of you at the opera may have seen Siegmund draw the magic sword from the big tree-trunk in the center of his sweetheart's home.) Well, you could attach cords from pegs driven in

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a circle around the base, to the tree at any height desired, and here plant either the scarlet runner or the hyacinth bean.

Still another way is to plant two poles 8 or 10 ft. apart, and have a stick nailed across the top, like the ridge pole of a tent. Drive pegs into the ground along each side, in parallel lines 6 or 8 ft. apart, and tie heavy cords from the pegs on one side to the pegs on the other,—carried, of course, over the ridgepole. Plant your seeds close to the pegs, and in a few weeks your vines will form a flower tent. For this purpose, you might use the climbing nasturtiums or the wild cucumber vine. Or, if you can save up the fifteen cents necessary, buy the new cardinal climber, which has clusters of five to seven blossoms each, of a beautiful cardinal red, from July until late fall. The vine grows rapidly, and often more than 20 ft. long, so that when it reaches the ridge-pole, you can let it run over the other side, and make a good thick roof. The seeds are very hard, however, and so should either be soaked over night, or slightly nicked with a file.

If you get a firm, strong framework for your playhouse, you might like to plant a hardy vine that would live through the winter and be ready for use early next summer without further trouble. In that case, you could use the Dutchman's pipe,

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which is a fast growing climber having peculiar yellow-brown flowers the shape of a pipe. Though these seeds are only ten cents per packet, the young plants are sold by the nurserymen for fifty cents apiece: so if you grow them yourself you can figure out what a valuable little house you will have!

The everlasting pea is a sprawling, quick grower, having many flowers in a cluster, and blooming in August. It thrives in even the most common soil, and gets better every year. It comes in white, pink and red, and a package of the mixed colors can be bought for five cents.

Other things besides vines are good for flower playhouses. Hollyhocks, planted in a square or a circle, will soon be high enough to screen you from the curious butcher-boy or the neighbor's maid. While most kinds are biennials, and so do not bloom until the second summer, you can either coax a few plants from some grown-up friend that has a lot already established, or you can buy seed of the new annual variety, which, if sown in May, will flower in July!

Sunflowers, too, are to be found in several varieties, ranging from 6 to 8 ft. in height, which you could use for a sort of a stockade, a *la* Robinson Crusoe. Those having the small blossoms are nice

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for cutting, while the old-fashioned kind furnishes good feed for the chickens,—in which case your plants would be well worth growing for the seed.

It will never do, however, for you simply to get your flower playhouse started, and then leave it to take care of itself! You must watch the baby plants as soon as they peep out of the ground, help the vines to grow in the right direction and water thoroughly whenever there is a dry spell. Cultivate around the roots every few days, as this breaking up of the hard crust which forms on top will prevent the moisture from escaping through the air channels in the soil, and keep the roots moist. Several times during the season dig in a trowelful of bonemeal around each plant, and then give a good wetting.

While the hardy vines, after once getting started, bloom every year without much more attention, the annuals have one advantage,—you can have a different kind every time. In other words, you would then be able to give your house a fresh coat of paint,—I should say, flowers—every summer.

CHAPTER XIII

The Work of a Children's Garden Club

I am ever being taught new lessons in my garden: patience and industry by my friends the birds, humility by the great trees that will long outlive me, and vigilance by the little flowers that need my constant care.

—*Rosaline Neish.*

DID you ever see the boy or girl that did not want to get up a club? I never did; and the reason is that people, young and old, like to both work and play together. Now a garden club is really worth while, and although I might simply TELL you how to proceed after getting your friends to meet and agree on the purpose, you probably will get a much clearer idea if I relate what a certain group of little folks actually did accomplish.

Fifteen boys and girls living in old Greenwich Village,—today one of the poor, crowded sections of New York City, where even the streets are dark-

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ened by a tall, unsightly elevated railroad,—were invited to form a club that would be taken once a week out on Long Island to garden. A vacant lot, one hundred by one hundred and ten feet, in Flushing, about twelve miles away, had been offered for their use, and some of the older people saw that the ground was first properly ploughed up, for, of course, the children couldn't be expected to do that kind of hard work.

But they could, and they eagerly did see that the soil was then properly prepared by breaking up the clods, removing all the sticks and stones, and getting the earth raked beautifully smooth. Several Flushing ladies agreed to help, making out lists of the flowers and vegetables most easily grown there, getting the seeds free by asking for them from their Congressman at Washington, and then showing the children how to plant.

First a five-foot border was measured off clear around the lot, for a flower bed, and each child had its own section. After finding out what each one wanted to grow, one bed was planted to show how the work should be done,—the depth to put in the seeds, the distance the rows should be apart, the way to cover, besides the placing of the tallest flowers at the back or outer edge, and the lowest or edging plants along the foot path.

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This 18-in. path ran clear around the lot, leaving a large plot in the center. This plot was then marked off by string or wire to divide it into the vegetable gardens, with little walks between. The vegetable beds measured about 6 by 9 ft., but as 6 ft. proved wide for small arms to reach over and cultivate, this year the beds are to be made 5 by 10 ft. At first, too, each child grew its own few stalks of corn on its own bed, but it was difficult to manage, so now all the corn will be grown in one patch, where it can be more easily hoed.

The radishes and lettuce, of course, grew most quickly, and within five or six weeks were ready for the table. On that memorable first day, from the fifteen beds, over one thousand radishes alone were picked, and that original planting continued to produce for nearly a month. Successive plantings brought on plenty for the rest of the season. The lettuce, too, grew abundantly, while the cucumbers were especially fine. String beans were ready very early, and three plantings during the season produced sometimes two to three quarts a week for each child. Tomatoes grew in such profusion that once during the hot weather when they ripened faster than usual, a neighboring hospital was given two bushels!

And flowers! The children actually could not

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carry them away. They took home all they wanted, and made up the rest into thousands of little bunches which the city Plant, Flower and Fruit Guild gladly called for and distributed to the New York City hospitals, jails and missions. Freshly cut, they would last a week, until the children's next visit to their gardens. With hollyhocks, dahlias, cannas and cosmos at the back of the border, and in front stocks, poppies, sweet alyssum, Japanese pinks, nicotiana, and the loveliest blue cornflowers imaginable, they offered a choice variety.

How the children loved the work! One poor little lame boy took some of his morning glory seed back to the slums and planted—where? In a box on the window ledge of a dark court that never saw a ray of sunshine. (The woman in the tenement below objected to having it on the fire escape in front and he had no other place.) And there it actually bloomed, dwarfed like its little owner, fragile beyond words, with a delicate flower no bigger than a dime, but answering the call of love.

The gardens thrived in spite of the only once-a-week care. A pipe line, with a faucet, ran to the center of the lot, and plenty of watering cans were provided for the weekly use, but during any extra hot weather a friendly neighbor would turn on her hose in between times to save the crops. And a

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children's outgrown playhouse, donated for the purpose, served as a convenient place to keep the garden tools.

The garden work created general interest in all nature study, and the children would go on trips to gather all kinds of grasses, wild flowers, and swamp treasures. These were dried, then classified, and later presented to the Public Library for the use of teachers and students of botany. And the little lame boy mentioned made a really beautiful collection of butterflies.

If the club you organize wants a community garden, almost any owner of a vacant lot will give you its use,—especially if you offer in return to give him some fresh flowers and vegetables. If you prefer, however, you can have your gardens on your own grounds. Then a committee of your elders could be invited to give you suggestions as to the flowers and vegetables best adapted to your location and soil, and also to act as judges at your show. For, of course, when everything is at its best you will want to have an exhibition. Perhaps some father or mother will offer a prize,—a book on gardening, a vase or a plant for winter blooming.

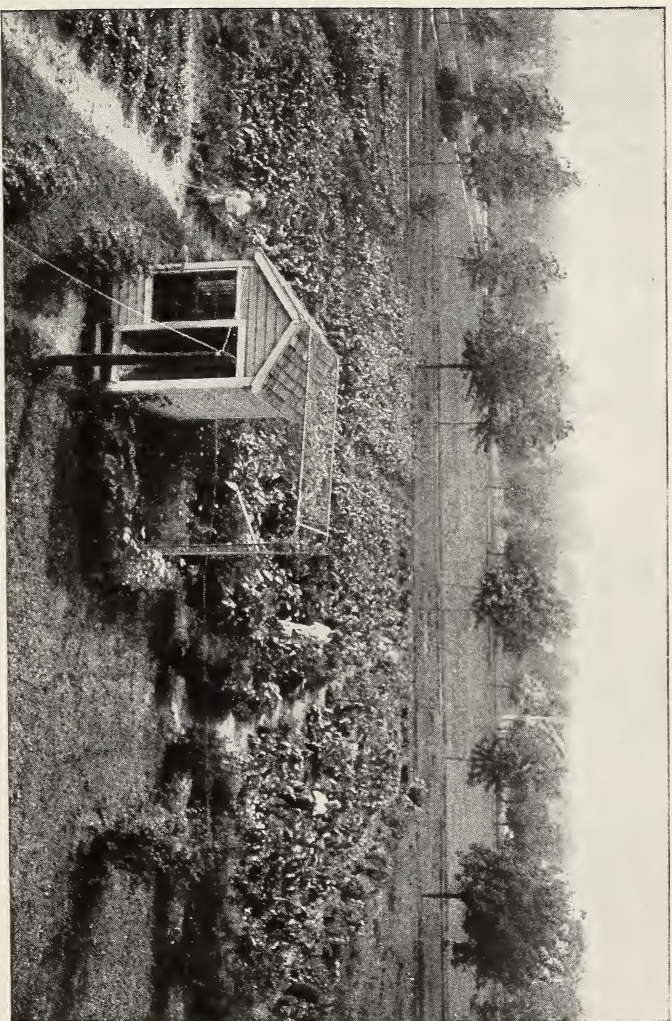
Remember that both the Department of Agriculture at Washington, and your State College of

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Agriculture are anxious to help this kind of work. The former gives you all the seeds you need, free of charge. Write to some well-known seed houses for catalogues, and you will get particulars about all the different varieties. Go to your Public Libraries, and you will find the most fascinating books, many written especially for children, telling you just what to do. "When Mother Lets Us Garden," by Frances Duncan, is one of the best and simplest, while "Little Gardens for Boys and Girls," by Higgins, "Mary's Garden and How It Grew," by Duncan, "Children's Library of Work and Play Gardening," by Shaw, and "The School Garden Book," by Weed-Emerson, are all intensely interesting.

If you find yourself so successful in your work that you have more flowers and vegetables than you can use, remember that there are always plenty of poor people in your own town who would gladly accept your gifts, and any church organization would tell you how to reach them. If, however, you are trying to earn some money for yourself, you can always find regular customers glad to buy things fresh from the garden.

For a meeting place during the summer, why not plan a flower club-house? Perhaps some of the dear old grandmothers will give you a few holly-



AN OUTGROWN PLAYHOUSE HELD THE TOOLS USED BY THE CHILDREN
IN THESE GARDENS



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hock roots, which you can plant in a circle big enough to hold your little club. Leave an opening in the ring just big enough to enter through, and before the season is very far along, the hollyhocks will be tall enough to screen you from the passerby. The hollyhocks sow themselves, and come up every year, and hybridized by the bees, show different colors every season. Better still, go to the woods for a lot of brush, stick it in the ground to form a square room, and cover with a brush roof. Over this you can train wild honeysuckle, which you can find in lengths of ten and twelve feet. Or you can buy a package or two of the Varigated Japanese Hop, which will grow ten feet in a month or six weeks,—and sowing itself, come up and cover your house every year.

A garden club proves a source of pleasure through the winter, too. You can go on with the care and cultivation of house plants, and the growing of all kinds of bulbs. You can meet regularly at the different homes, and have the members prepare and read little papers such as "How to Grow Roman Hyacinths in Water," "The Best Flowers for a Window-Box," "Raising Plants from Cuttings," "Starting Seeds Indoors," "How to Make a Table Water-Garden," etc.

In case you wish to know exactly how to organize

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and conduct a club, just like big folks do,—get from your Public Library a book called “Boys’ Clubs,” by C. S. Bernheimer and J. M. Cohen. This has also a chapter on girls’ clubs, and it tells you all about club management, so that you can have a lot of fun at your meetings, besides learning a great many important things in a way that you will never forget.

CHAPTER XIV

The Care of House Plants

Who loves a garden loves a greenhouse too.

—*Cowper.*

“If you are one of those people who love flowers and can make them grow,” said a Fifth Avenue florist to me recently, “you can do almost anything you please with them, and they will thrive.” “So, then,” I laughed, “you think love has a great deal to do with the matter?” And he replied, “I most certainly do!” Therefore, if you love to see “the green things growing,” enough to give them the least bit of intelligent care, you can reasonably hope to raise all you have room for.

The main points to bear in mind are light, heat and moisture. Flowering plants need sunlight at least part of the day, and generally do best in a south window. Most of the decorative or foliage plants, on the other hand, will keep looking well

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with only a reasonable amount of light, as when near a north or east window, if they have the proper amount of heat and moisture. But don't, please, set any plant back in the room, away from the light, and expect it to succeed very long,—for it never will! Select, then, growing things suited to your living quarters, and learn their needs.

The heat of many living-rooms is too great,—and too dry,—for some plants to do their best in, and they should be kept near the windows, although out of draughts. They usually will stand as much cold at night as they are likely to get in an ordinary house, so it is best not to overheat them during the day, but instead, keep them in a cool part of the room. Moreover, they thrive better if, when suitably placed, they are allowed to remain undisturbed.

The atmosphere should be kept moist by means of water kept on stove, register or radiator, but water to the roots should be applied to most plants only when the soil is dry. This during the winter generally means two or three times a week. With few exceptions, plants should not be watered while still showing dampness.

“I often wonder,” said another florist, “that women with gardens do not try to save some of their flowering plants that might easily be moved into

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the house. Perhaps they think it isn't worth while." If they can afford to buy all they want to, that may be the reason, but the real flower lover will delight in coaxing some favorite to go on blooming indoors. Heliotropes cut back, petunias and salvias, by being carefully lifted with a ball of earth so as not to disturb the roots, and then kept in the shade for a couple of days, ought to continue to bloom for some time. Begonias I have moved this way without affecting them for a single day. A small canna, thus potted, will last a long time and help out among the more expensive foliage plants. Geraniums, however, are the old stand-by of window gardeners. If "slipped" during the summer, by cutting off a tender shoot just below a joint, and putting it in a pot of light, rather sandy soil, and kept moist, it should bloom during the winter. It does best in sunshine.

The kind of soil best adapted to houseplants generally, is given by one authority as two parts loam, one part leaf mould, one part sharp sand. The variation of different growers simply proves what I have seen contended, that it is the proper temperature and moisture that really count.

The city girl, with little space to spare, will find the begonias, in their many varieties, most satisfactory. They respond quickly to house treat-

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ment, and a small plant from the florist's will grow so rapidly as to soon need repotting. These favorites are of a large family, and some will stand considerable shade. A large, lovely specimen now about three years old, in my own home has developed from a little thing costing fifteen cents. Get cultural directions for the kind you buy, as they differ. A couple of stalks broken from an old plant early in the season, and stuck in a small pot, if kept thoroughly damp, will soon root, and blossom in a very little while.

Fuchsias are another old favorite easily grown from cuttings, and thriving well in a window. Primroses are easily grown from seed, and when started in February or March, should begin blooming in November and under careful treatment, last through the winter. The crab cactus or "Christmas cactus," as I have heard it called, is one of the most easily grown houseplants, and sends out bright red flowers at the ends of the joints, making an attractive plant for the holidays.

Of the ferns, I have found several varieties exceptionally satisfactory. A little Boston, costing only twenty-five cents when bought for a small table decoration four or five years ago, and changed from one pot to another as growth demanded, today is five feet in diameter,—and the despair of the fam-

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ily on account of the room it requires. It has always stood near either an east or a west window during the winter, in a furnace-heated, gas-lighted house, and been moved to a north porch during the summer. This type needs considerable moisture, and does best when watered every day. I have even seen it growing in a large basket placed in a pan of water. The leaves of this group must be kept clean, and I wash mine occasionally with a small cloth and warm water, using a little soap and then rinsing, if I discover any trace of scale,—that little hard-shelled, brown pest often found on both stems and leaves.

Both of the asparagus ferns,—the *plumosus* and the *Sprengeri*, I have grown from tiny pots until they became positively unwieldy, by giving about the same kind of treatment. None of these should be allowed to dry out, as they then turn brown and wither. The asparagus *plumosus* can be either pinched back to keep as a pot plant, or encouraged to grow as a vine. The asparagus *Sprengeri* is especially valuable for boxes and baskets, on account of its long, drooping sprays, and if allowed to develop naturally during the summer, should be well covered with its lovely berries at Christmas time.

The holly fern is especially beautiful, while also

quite hardy and—to its advantage—not so common as the varieties already mentioned. Several small specimens found planted at the base of a Christmas poinsettia were afterwards set out in small pots, and grew with surprising rapidity. They stood the dry heat of a steam-heated house, and kept a lovely glossy green when other plants were seriously affected.

Fern dishes are frequently filled with the spider ferns, though often combined with the others mentioned. On a certain occasion, when a neglected fern dish had to be discarded, I discovered in the center a tiny plant still growing that looked so hardy I decided to repot it. It grew and, to my surprise, soon developed into an attractive little kentia palm, now three or four years old and eighteen inches high. I think that one reason the ordinary fern dish does not last long is that it is kept on table or sideboard all the time, too far away from the light. Often, too, it is not properly watered. If every morning after breakfast it were sprinkled in the sink, and then set near a window, though not in the sun, it would soon be getting too big for its quarters, and need dividing. It is well to remember that the container is shallow and holds very little earth, hence its roots are in danger of drying out.

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All these ferns mentioned I have seen grown repeatedly, under varying conditions, in a furnace-heated house as well as a steam-heated apartment; and with a reasonable amount of light, and water enough to keep them thoroughly moist, I have had them green and beautiful the year around.

Palms and the popular foliage plants can be grown satisfactorily with little or no sunlight. The kentia palm before mentioned is one of the very hardiest, and will thrive where few others will grow. Both the cocoanut and date varieties can be easily grown from seed,—an interesting experiment. None of them require any particular treatment. A place by a north or east window will suit them perfectly; they will stand a temperature of forty-five degrees at night; but they do require plenty of water, and cleanliness of leaf. Water them as the earth becomes dry, but do not leave standing in half-filled jardinieres, (as people often do,) as much soaking spoils the soil. A good plan for plants of this class is to set them in a pail of warm water and leave for a few hours or over night, about once a week, and then when they become dry in between times, pour water enough around the roots to wet thoroughly.

The rubber plant grows quickly compared with the palm, and requires very little attention. It

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does best in good soil, and thrives on being set in a half shady place outdoors during the summer. One that I have watched for four years has stood during the winter near a west window, only a few feet from a steam radiator. It would get quite dry at times, but never seemed to be affected at all. When a plant gets too tall for a room, and looks ungainly, make a slanting cut in the stem at the height desired, slip in a small wedge, and wrap the place with wet sphagnum moss, which must be then kept wet for several weeks. When you find a lot of new roots coming through this wrapping, cut off just below the mass and plant the whole ball in a pot with good soil. Keep in a shady place for a few days, and in a short time you will have two nice, well-shaped plants instead of the single straggly one.

A group of three long, slender-leaved plants are the next of those easily grown for their foliage. The hardiest is the aspidistra, with its drooping dark green leaves, each coming directly from the root stalk, and it will stand almost any kind of treatment. From one plant costing a dollar and a half five years ago, I now have two that are larger than the original and have given away enough for five more. It has an interesting flower, too,—a wine-colored, yellow-centered, star-shaped blossom

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that pushes up through the earth just enough to open, and which often is hidden by the mud of excessive watering.

The pandanus produces long, narrow leaves from one center stem, and can be bought in plain green, green and white or green and yellow. It needs good drainage, but takes a rich soil and plenty of water. It stands exceedingly well the dust, dryness and shade of an ordinary living-room, so is a valuable addition to any collection of houseplants. It is easily multiplied by using the suckers as cuttings.

The dracænas are quite similar to the pandanus, only they are usually marked with a beautiful red. They are equally suitable for living quarters, and will thrive under the same conditions. The umbrella plant requires an unusual amount of water, and will grow nicely in a water garden. Its tall, graceful umbrellas make it an especially attractive plant. The Norfolk Island pine is another popular houseplant that asks only to be kept cool and moist. Beautifully symmetrical, it fits especially well in certain places, and will respond gratefully to even a reasonable amount of attention. For a small plant, the saxifraga I like very much, with its beautifully marked leaves and the runners which make it so effective for a bracket or basket.

The "inch plant," or "Wandering Jew," as some

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people call it, in both the green and the variegated, looks and does well in wall pockets or when grown on a window sill in a fine, thin glass. Smilax is also recommended for the window garden, and will grow in quite shady places, though it needs to be trained up. All the ferns and green plants mentioned are likely to prove more satisfactory than the flowering ones to the amateur doomed to live in sunless rooms,—which, however, can be made most attractive with what is suitable.

SIMPLE INDOOR NOVELTIES

The prettiest kind of a little hanging basket is made by cutting off the top of a big carrot, carefully scraping out the inside, running a cord through holes made near the rim, and keeping it full of water. It will soon resemble a mass of ferns.

A lovely little water garden for the dining-room table is made by slicing a $\frac{3}{4}$ -in. thick piece from the top of a beet and a carrot, and laying them in a shallow dish or bowl, with half an inch of water,—to not quite cover the slices. Set in the light for a few days and you will have soon a beautiful mass of feathery green and sword-like dark red foliage that will last for months.

Grape fruit pips will sprout in a bit of soil

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very quickly, and make a mass of attractive green often where ferns have failed to grow.

WINTER BLOOMING BULBS

Of all the bulbs for winter blooming, the Chinese lily is one of the most satisfactory, as it flowers in a few weeks, and is grown in a shallow bowl in water, with pebbles to hold it in position. It is best to set it in a dark place for a week or two until the roots start, when it can be brought to a light window.

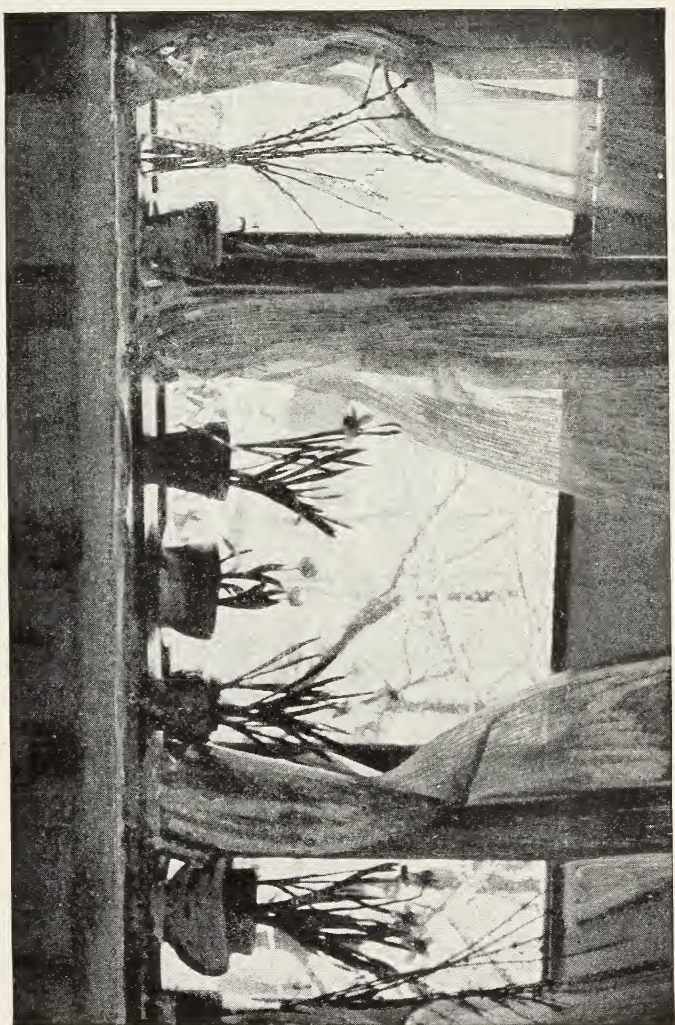
The paper white narcissus and the Roman hyacinth can also be grown in water, or placed in soil if preferred. They will blossom in about eight weeks. The other "Dutch" bulbs will take longer, although the hyacinths are easily grown in water by setting each bulb in a hyacinth glass or an open-mouth pickle bottle, with water enough to just touch the bottom of the bulb, and then putting away in a cold, dark place (like a cellar), until the roots nearly touch the bottom of the glass. A few pieces of charcoal help to keep the water sweet. Bring gradually to a light window, and when flower buds are well started, put in the sun. By bringing out this way in the order of their best development, flowers can be had for a long season. The

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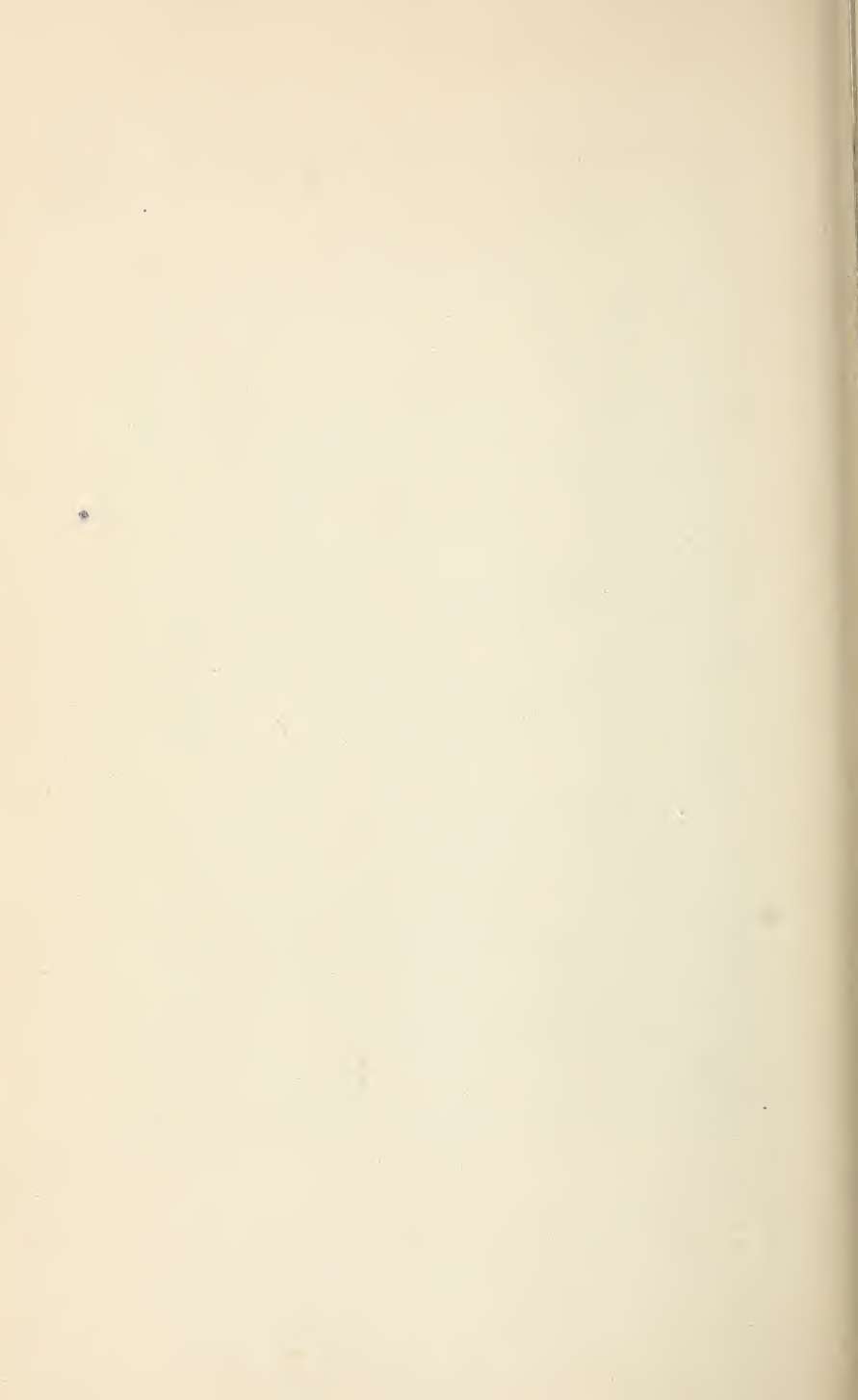
hyacinth bulbs can be bought from five cents to twenty-five cents apiece, according to their fine breeding.

Tulips, daffodils and hyacinths when grown in good soil in the shallow "pans," should be set deeply enough to be just covered, quite closely together if wanted in a group, thoroughly watered, and then put in a cold, dark place (frost free, however). Keep moist for from two to four mos.—when you can begin bringing them into the warm living-room as desired, and place in the sunlight after buds form. With this method is secured a succession of bloom from January until the spring flowers come out-of-doors.

The freesia and the oxalis are of the "Cape" group of bulbs, and when started in the fall should blossom in four or five months. Plant in good, rich soil (half a dozen to a 5-in. pot), set away in a cool but light place, and leave until some leaf growth has started. Then bring into a light, warm room as desired for different periods of bloom. The amaryllis is another foreign bulb that comes into market in the late fall. Pot it in rich soil, rather sandy, do not cover the top of the bulb, and keep rather dry until it gets a good start. When buds are noticed, put the plant where it will get the sunlight, and water regularly.



SPRING BEAUTIES,—TULIPS, DAFFODILS, CROCUSES, PUSSY WILLOWS AND FORSYTHIA,—
BLOOMING INDOORS AGAINST A SNOWY BACKGROUND



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SPRING BEAUTIES

As I look up from my work, my eyes rest on the different spring bulbs blooming this 28th day of February, in my south window, against their snowy background,—purple crocus, both red and white tulips, and that loveliest of daffodils, the white-tipped Queen Victoria. They were potted last October, covered up in an ash-lined trench outdoors until after the holidays, then carried into a cold but light attic for a week, before finally being brought into a warm room. The daffodils cost but three cents apiece, yet each fills an ordinary pot, and produces three lovely blossoms, four inches across.

A new fibre is now on the market at a very low price that can be used exactly like earth, only it does not sour, and consequently can be put in any fine bowl or jar, as it does not need drainage. Once thoroughly wet, it has only to be kept moist and the plants do as well as in soil. I, personally, prefer to plant in soil.

The family living in an apartment with no cold place to start the bulbs that take so long, could easily fix a box or egg-crate under the coldest window and darken it with a small rug, hiding there for a few weeks the Roman hyacinths and narcissi.

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BOOKS FOR THE INDOOR GARDENER

However successful you are with your window gardening, you are sure to enjoy knowing what other people have learned and written on the subject, and a number of simple, interesting books are available. Your librarian will be glad to point out the best she has to offer, and there are several you may want to own. "Manual of Gardening," by L. H. Bailey, formerly Dean of the Agricultural College at Cornell University, is one of the most comprehensive, covering every phase of gardening, summer and winter, indoors and out; "The Flower Garden," by Ida D. Bennett, devotes considerable space to house plants, window gardens, hot beds, etc.; "Green House and Window Plants," by Chas. Collins, is a little book by an English authority, and goes quite fully into soils, methods of propagating, management of green houses, and also the growing of house plants; "Practical Horticulture," by our own Peter Henderson, while especially valuable to the large commercial grower, contains much interesting information for the amateur; "House Plants and How to Grow Them," by P. T. Barnes, however, is one of the simplest and best, and sure to suit the busy school-girl, in a hurry to

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find out the proper way to make her particular pet plant do its very best.

And just as surely as she would not attempt to make a new kind of cake without a reliable recipe, just so surely ought she not to expect to grow flowers successfully without finding out first how it should be done. Flowers, like friends, have to be cultivated, and consideration of their needs produces similar delightful results.

CHAPTER XV

Gifts that will Please a Flower Lover

You may break, you may shatter the vase if you
will,

But the scent of the roses will hang round it still.

—*Moore.*

CHRISTMAS giving to the flower lover is a matter of delight, for if you stop to think you will know what the recipient will be sure to appreciate. Cut flowers always afford joy, from an inexpensive bunch of carnations to the choicest American Beauties. The Christmas blooming plants, however, last much longer, and the rich scarlet berries of the ardesia will survive the holiday season by several months. Poinsettia has been steadily increasing in popularity, and can be surrounded by ferns that will live on indefinitely. All the decorative

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foliage plants are sure to be welcomed, for with care they will last for years, and improve in size and beauty.

The growing fad for winter-blooming bulbs affords another opportunity for pleasing. If you did not start in time to grow to flower yourself, give your friend one of the new flat lily bowls, procurable from fifty cents up, and with it a collection of bulbs for succession of bloom. These may be started in any kind of dishes with pebbles and water, set in a cool, dark place until the roots start, and then brought out to the light as desired. With narcissi at three cents each, Chinese lilies at ten cents, and fine hyacinths up to twenty cents, for named varieties, a dollar's worth will keep her in flowers for the rest of the winter.

Pretty little stem holders, made in pottery leaves, mushrooms, frogs, etc., cost only from forty cents to fifty cents, and will be nice to use in the bowl afterward, for holding any kind of cut flowers. We are adopting more and more the Japanese method of displaying a few choice specimens artistically, and assuredly this way they do show up to better advantage. Many new vases are displayed for the purpose. A charming Japanese yellow glaze, ten in. high, with a brown wicker cover, I saw for only a dollar and a quarter, while the graceful Japanese

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yellow plum blossom shown with it at thirty-five cents a spray, was a delight to the eye. A slender ground glass vase in a plated cut silver holder was only twenty-five cents, while the Sheffield plate bud vase was but fifty cents. These could be duplicated in cut glass and sterling silver at almost any price one wished to pay.

Venetian glass is quite fashionable, and can be had in all colors—red, blue, green, yellow and black, and while expensive, has been imitated in domestic ware at reasonable prices. Some of the new pottery bowls come in unusual shapes, in white, gray, green, blue, and many are small enough for a single bulb. A lover of the narcissus myself, I am delighted with the idea of bringing out my paper whites one at a time, so as to keep a lovely gray-green piece in use all winter. One of my friends, on the other hand, is growing hers in groups of half-a-dozen, the warm brown of the bulbs harmonizing most artistically with her delicately colored stones in a brown wicker-covered Japanese glazed dish.

This brown Japanese wicker, by the way, is most decorative, and can be found in various kinds of baskets, metal-lined, for cut flowers or plants of that grow in water,—some as low as ten cents apiece. A tall-handled basket of this kind is

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now standing on my buffet, beautiful with the variegated trailing sprays of the Wandering Jew. One could not ask for a more satisfying arrangement.

Enamelled tinware, hand-painted, is new, too, and comes in many pottery shapes, though strange to say, often at higher prices. Hand-painted china butterflies, bees and birds, at from twenty-five cents to fifty cents, are among this year's novelties, and look very realistic when applied invisibly with a bit of putty to the edge of bowl or vase. Some of the birds are painted on wood, life-sized, and mounted on long sticks, to be stuck in among growing plants or on the tiny trellises used for indoor climbers.

Many novelties in growing things can be found at the florist's—from the cheapest up to all you feel like paying. A dainty new silver fern, big enough for a small table, comes in a thumb pot at only ten cents. Haworthia is cheap, too, and has the advantage of being uncommon. More and more do we see of the dwarf Japanese plants, many quite inexpensive. The Japanese cut leaf maple, for example, can be bought for seventy-five cents. All are hardy, and suitable for small table decorations.

The new "air plant," or "Wonder of the Orient" (really an autumn crocus), surprises every one not acquainted with it, as it flowers during the late fall and early winter, without either soil or

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water, as soon as put in the sunlight for a few days. Better still, when through blooming, it will live through the year if put in soil, and store up enough energy to repeat the performance when taken out next season. Costing a dollar each when first introduced here, it can now be bought as low as ten cents a bulb.

Japanese fern balls, black and unpromising as they look when purchased, respond to plenty of light, heat and water by sending out the daintiest kind of feathery ferns in a few weeks, and will last for several years. They cost only thirty-five cents, too. Quaint, square pottery jars, suspended in pairs by a cord over a little wheel, like buckets on a well rope, make unusual hanging baskets and can be filled with your favorite vines and flowers.

Garden tools are always acceptable as the old ones wear out or get lost, and you can choose from the three-prong pot claw at a nickel up to the fully equipped basket at several dollars. Hand-woven cutting baskets, mounted on sharp sticks for sticking in the ground when you are cutting your posies, cost two dollars and a half, but will last for years. Small hand-painted, long-spouted watering cans, for window sprinkling, cost less than a dollar and look pretty when not in use. And for the person with only a window garden, the self-watering,

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metal-lined window boxes, that preclude dripping on the floor, will be a boon indeed.

Goldfish are pretty sure to please, for your flower lover is also the nature lover. Even the tiniest bowl is attractive, and one I saw recently had been in the house over two winters. The globe, however, does not meet our modern ideas for the reason that the curved glass reduces the area of water exposed to the air, so is bad for the fish. The new all-glass aquariums can be bought in either the square or cylindrical shapes, from a dollar and a quarter up, according to size and quality, while the golden inmates can be found from five cents, for the child's pet up to the fancier's Japanese prize-winner at one thousand dollars. Your aquarium will require no change of water, either, if properly balanced. Put in for the fishes' needs such oxygen-producing plants as milfoil, (*Millefolium*,) fish grass, (*Cabomba*,) common arrow head, (*Sagittaria natans*,) and mud plant, plantain, (*Heteranthera Reniformis*,) the first and third being especially good together. These in turn will thrive on the carbonic acid gas the fish exhale, so that one supports the other. A snail or two (the Japanese red, at twenty-five cents, preferred for looks,) and a newt will act as scavengers, and keep the water clear as crystal. For food, put in a small quantity of meat

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once a week, as the commercial "fish food" eventually causes tuberculosis.

Birds, too, are generally popular with flower lovers. Canaries probably are the stand-bys, though in the cities the uncommon little beauties often are preferred. Polly, however, holds her own, and with many people is the favorite.

Books,—always a safe and inexpensive gift,—are obtainable for the flower lover, in the most fascinating editions. They cover all phases of the subject, indoors and out, from the window garden to the vast estate, the amateur to the professional grower. And no true gardener could sit down by a blazing log on a blizzardy night, with Helena Rutherford Ely's "The Practical Flower Garden," or L. B. Holland's "The Garden Blue Book," filled with wonderful photographs and colored plates, without quickly becoming lost to the storm outside, and conscious only of sun-kissed lawns with blossoms nodding in the breeze. Heaven? Your friend will already be in imagination's Paradise, with an increasing sense of gratitude over your thoughtful selection.

CHAPTER XVI

The Gentlewoman's Art-- Arranging Flowers

In Eastern lands they talk in flowers,
And they tell in a garland their loves and cares;
Each blossom that blooms in their garden bowers,
On its leaves a mystic language bears.

—*Percival.*

THE above is almost literally true! You may be surprised to know that the arranging of flowers has not only long been considered an art, but that for centuries it has been closely connected with the whole life of a nation.

Away back in 1400, a certain ruler of Japan became so interested in this fascinating subject that he resigned his throne in order to study that and the other fine arts! One of his friends,—a great painter,—worked out the scientific rules which are still generally accepted, and the study became the

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pastime of cultured people. Moreover, Japan's greatest military men have always practised the art, claiming that it calmed their minds so that they could make clearer decisions on going into battle!

Briefly put, the Japanese ideas are as follows: First, to use very few flowers (preferably three,



BLOSSOMS IN JAPANESE ARRANGEMENT

five, or seven, with their foliage), and but one kind together. Then to arrange these so that the three main blossoms form a triangle,—the highest point of which they usually call Heaven, the middle point Man, and the lowest point Earth. If five or seven flowers are used, the others are the unimportant ones, and used as “attributes,” placed near the important points. And as many of their favorite flow-

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ers, like the iris and the chrysanthemum, have quite straight stems, people have to learn how to bend them without breaking. Each flower is studied, selected for its place in this triangle, and then, oh! so very delicately, shaped to the desired line.

And then as so few flowers would be apt to slip around, they skilfully hold them in place by means of slender sticks, cut the exact size, split at one end, and then sprung into place across the vase or bowl.

If the stems curve to one side, it is called the male style, if to the other, the female style; the arrangement must look not like cut flowers, but like the living plant, and suggest the growth by the use of buds, open flowers and withered leaves. Good and evil luck are connected with the placing, as well as with the colors and the numbers chosen,—even numbers and red being ill-omened. Certain arrangements also suggest the seasons, one style, for instance, representing spring and another autumn. While we today are not interested in Japanese symbolism, we, many of us, are quite interested in Japanese methods on account of their artistic effects.

Many books have been written by the Japanese on their favorite subject,—some as far back as the Thirteenth Century! Of course you never could read them even if you could find them here; but a

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Western woman spent a long time over there, studying under the guidance of their priests, and recently wrote a book ("Japanese Flower Arrangement," by Mary Averill,) which explains everything and is full of illustrations, so that you can see for yourself the results of following the Japanese way.

Her most interesting message for you may be one method they have of making their flowers last. During moderate weather it can be done in this country by simply holding the stems of the flowers in a gas or candle flame until black and charred, and then putting the flowers in very cold water for seven or eight hours.

Another book, with a lot of beautiful pictures showing us how to arrange flowers to please better, perhaps, our American taste, is "The Flower Beautiful," by Clarence Moores Weed. It illustrates most of our own familiar flowers, in all kinds of artistic holders, and is sure to give us new ideas about arranging them so as to enable us to bring out their full loveliness. Both of these books should be found in any good Public Library, and in looking them over, you will have a treat.

A prominent New York florist, in showing our Garden Club his methods of arranging flowers, advised (for one thing) filling a low bowl with

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broken twigs or branches, to hold the stems and keep the flowers in position without crowding. Breaking up a few ferns to illustrate, he dropped them in a cut glass dish, and then stuck in a dozen stalks of pale pink primroses. The result was an inexpensive table decoration as beautiful as any costly display of roses. Personally, I did not approve of his ferns, as they would very quickly decay in the water: but as a child I had learned from my grandmother his better idea of half-filling the dish with clean sand. It holds the stems exactly as placed, and can be entirely hidden by the foliage.

Roses, the gentleman also told us, draw up water above the surface only one-half the length of the stem in the water, and consequently should not extend more than that height above the water,—else the “forcing power” (as it is called) will not carry it far enough to sustain the flowers at the end of the stems. (This may account for my own success in keeping roses often for a week, for I usually take them out of the water, lay them in a wet box or paper, and place them flat in the ice-box over night so the water in the stems can flow to the extreme end.) He also said they should never be crowded together, but rather be separated as the primroses were. Both the leaves and the thorns under water should be removed, as the leaves quickly foul the

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water, and the breaking off of the thorns opens new channels for nourishment to reach the flowers.

The flat Japanese bowls so popular the past few years, are not only artistic, but good for the flowers, which in them are not crowded, and so can get their needed oxygen. They can be held in place by the transparent glass holders if one objects (as the florist did,) to the perforated frogs, turtles, mushrooms, etc., now to be bought wherever vases and other flower holders are sold. Any one who has tried to arrange even half a dozen blooms in this simple way will never go back to the crude, old-fashioned mixed bouquet! On the tables of the fine restaurants in New York City one most often sees only a simple, clear glass vase, with perhaps only two or three flowers; but they can be enjoyed for their full beauty.

The secret of the whole subject is *simplicity!*—and you never know what you can do until you try. At our last Garden Show I had expected to make a well-studied arrangement of wild flowers for that class of table decorations, but did not have the time. At the last moment I took an odd little glass basket, filled it with damp sand, and stuck it full of cornflowers, (what you might call ragged robins or bachelor buttons, and which I grow to go with my blue china,) so that the holder was nearly hid-

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den. On seeing it in place, on the show table, I frankly confess I was quite ashamed of my effort, it looked so very modest: and you can imagine my great surprise when I discovered later that it was decorated with a coveted ribbon!

There is one way, however, in which the mixed bouquet can be put together so as to look its best, and our florist-guest demonstrated it. On coming to the close of his remarks he began picking up the flowers he had been using in his various arrangements with his right hand and placing in his left,—paying no attention whatever to what he took, nor even looking at what he was already holding. Rose, daisy, jonquil, primrose, everything, just as he chanced to find it at hand, went together. *But*,—and here was the secret of the successful result—he grasped them all at the extreme lower end of their stems, whether long or short, so that the bouquet on being completed had that beautiful irregular outline as well as the mixed color that Mother Nature herself offers us in the garden! So if you ever have to put a quantity of mixed flowers together, remember to do it this way.

And now a last word about flower growing. Don't you know that old adage, ending "try, try again?" When you think of the great Burbank, growing thousands upon thousands of a single kind

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of plant or flower in order to develop one to perfection, you can have patience in spite of pests and weather. I hope you will have quantities of the loveliest blossoms, and for the happiest occasions of life.

May you realize all your fondest expectations.





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